FALL 1969

(FOR SEPTEMBER, OCTOBER AND NOVEMBER)
Next issue December 1, 1969



United States Listings

radio amateur callbook magazine



Photo courtesy Colonial Williamsburg

COLONIAL WILLIAMSBURG

VIRGINIA, one of the original 13 States and the first permanent settlement in America was here in 1607. Famed for its colonial heritage, tourism has become the State's second highest source of income. Of the many historical areas Colonial Williamsburg is outstanding. A stopover here is a step back into the 18th Century where many of the original buildings are still standing, completely restored, others reconstructed. Travel along the Duke of Gloucester Street, pictured above, the main thoroughfare of Williamsburg for two and a half centuries. One visit is not enough to this delightful place in history—over a million visitors a year walk through America's history at Williamsburg.

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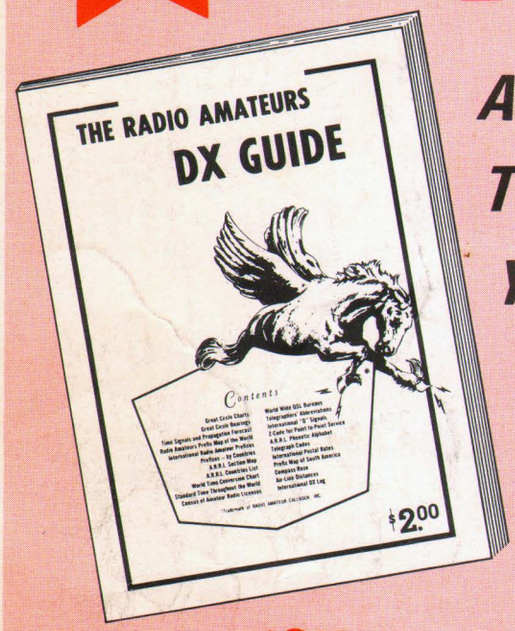
in this issue

- 286,026 U. S. licensed radio amateurs, including 5,278 new licenses issued by FCC since the Summer 1969 issue.
- Over 26,000 changes in listings.
- STOP PRESS—late QTH's.
- CLASS OF LICENSE on each call.
- THEN & NOW—Call letter changes.
- SILENT KEYS deleted from this issue.
- QSL MANAGERS AROUND THE WORLD.
- Radio Amateur prefixes of the world, with map, A.R.R.L. countries list.
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The DX Guide is a handy reference manual containing valuable information for every radio amateur — especially the DXers.

JUST LOOK AT THIS TABLE OF CONTENTS

INTERNATIONAL DX LOG — prefixes of all countries that qualify for DXCC. Ample space provided to make a permanent record of all DX stations worked; showing date, call letters, frequency and whether a QSL card has been sent or received.

WORLD MAP SHOWING RADIO AMATEUR PREFIXES — an outstanding map, 15" x 10".

GREAT CIRCLE MAPS — centered on New York City, San Francisco, Calif., Seattle, Wash., Washington, D.C., and the center of the United States.

GREAT CIRCLE OUTLINE CHART OF THE UNITED STATES — determine the great circle bearing between any two points in the United States with this map.

PREFIX MAP OF SOUTH AMERICA — shqwing the number or letter designating all sections and countries.

ARRL SECTION MAP — of the U.S., check off the sections you have worked during ARRL contests.

GREAT CIRCLE BEARING TABLES — each printed on a separate page for easy removal of the one nearest your location. 293 bearings are shown to the nearest degree on each table for: Atlanta, Ga., Boston, Mass., Buffalo, N.Y., Chicago, Ill., Columbus, Ohio, Denver, Colo., Detroit, Mich., Houston, Texas, Jacksonville, Fla., Kansas City, Mo., Knoxville, Tenn., Los Angeles, Calif., Louisville, Ky., Miami, Fla., Minneapolis, Minn., New Orleans, La., New York City, Norfolk, Va., San Francisco, Calif., Seattle, Wash., Washington, D.C., and the geographical center of the United States.

GREAT CIRCLE BEARINGS IN THE UNITED STATES — between 39 large cities in the U.S.A., — a valuable aid for VHF work as well as handling traffic through QRM.

GREAT CIRCLE BEARINGS TO WORLD WIDE METROPOLITAN AREAS — exact bearings to the nearest degree from 39 cities in the U.S.A., to 39 metropolitan areas throughout the world.

TIME CONVERSION TABLE — determine the time in any time zone in the world. Also know whether it is today or tomorrow at the place heard or worked.

TIME THROUGHOUT THE WORLD — time zones of most countries. Explains the International Time Zone System.

AIR LINE DISTANCES IN THE UNITED STATES — arranged in alphabetical order between 39 cities of the United States.

POSTAL INFORMATION — rates for QSL cards, first class and airmail letters to foreign countries. Also the number of international reply coupons for the proper postage for a return airmail letter is shown for most countries.

ARRL COUNTRIES LIST — official list of ARRL DX contest and DXCC. Courtesy ARRL.

DX CONTEST AND FIELD DAY LOG — can be used either for a DX contest or the annual ARRL field day.

COMPASS ROSE — for that rotary beam indicator, graduated for 360 degrees. One with white background and no print on the reverse side of the sheet. The other has a black background.

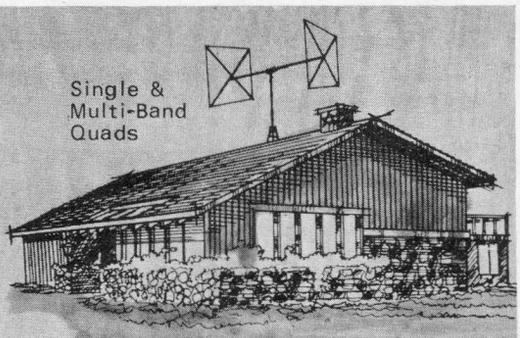
PLUS THESE INTERESTING FEATURES — INTERNATIONAL "Q" SIGNALS; WORLD WIDE QSL BUREAUS; "Z" CODE FOR POINT TO POINT SERVICE; "Q" SIGNALS AND ARRL PHONETIC ALPHABET; TELEGRAPHERS ABBREVIATIONS; DX OPERATING CODE; MORSE CODE.

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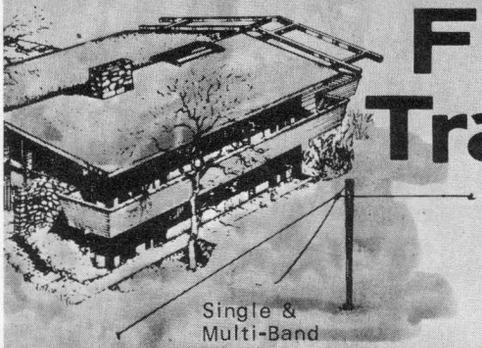
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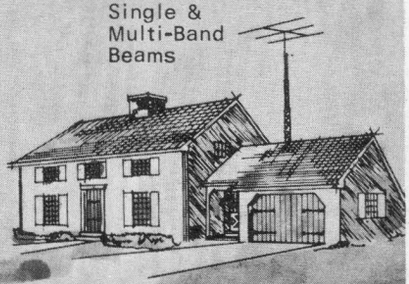
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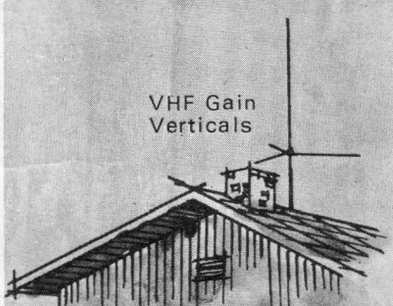


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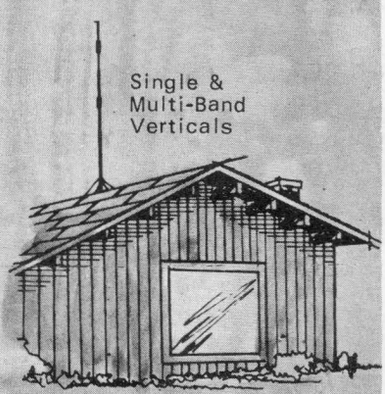


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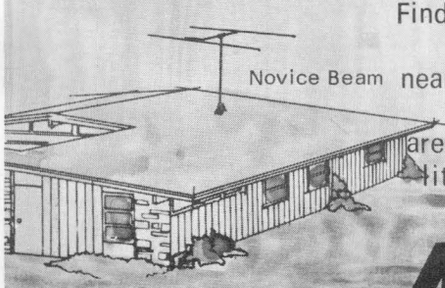
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RADIO AMATEURS OF THE U. S. A.

VOLUME 47
NUMBER 3

ALL K AND W CALLS

FALL 1969

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OTHER CALLS INCLUDING HAWAII AND ALASKA------597

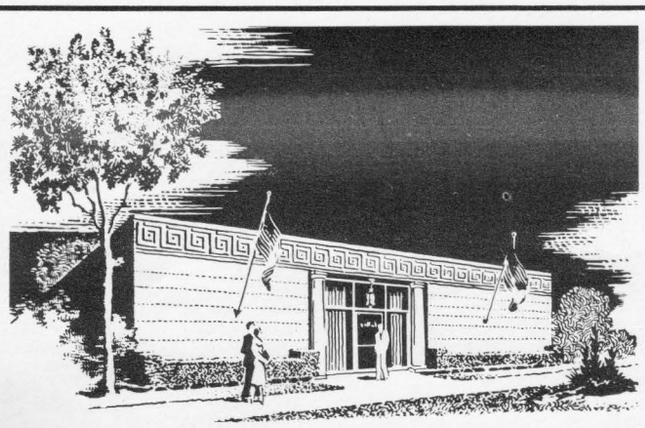
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The Home of RADIO AMATEUR CALLBOOK a modern air-conditioned building planned for maximum efficiency in the production of Callbooks and Callbook products.

A year around staff, through the use of electronic data processing equipment, evaluates and compiles the directory information received daily from all over the world. Extensive library and historical records are maintained to provide the most complete and accurate Callbook possible to produce.

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PREFIXES—BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent ana zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

Afghanistan	(A-21)	YA
Aland Is	(E-15)	OHØ
Alaska	(NA-1)	KL7
Albania	(E-15)	ZA
Algeria	(AF-33)	7X
Amsterdam & St. Paul Is	(AF-39)	FB8
Andaman & Nicobar Is	(A-26)	VU5
Andorra	(E-14)	PX1
Angola	(AF-36)	CR6
Antarctica		CE9AA-AM, FB8Y, KC4AA, KC4US, LA, LU-Z, OR5, VKØ, VP8, UA1, ZL5, 3Y, 8J
Argentina	(SA-13)	LU
Ascension Is	(AF-36)	ZD8
Austral & French Antarctic	(A-39)	FB8
Australia	(O-29 & 30)	VK
Austria	(E-15)	OE
Azores Is	(E-14)	CT2
Bahama Is	(NA-8)	VP7
Bahrain	(A-21)	MP4B
Baker Is	(O-31)	KB6
Balearic Is	(E-14)	EA6
Barbados Is	(NA-8)	8P6
Belgium	(E-14)	ON
Bermuda Is	(NA-5)	VP9
Bhutan	(A-22)	AC5
Bolivia	(SA-10)	CP
Borneo	(O-28)	8F5
Botswana	(AF-38)	A2C
Brazil	(SA-11)	PY
British Honduras	(NA-7)	VP1
British Phoenix Is	(O-31)	VR1
Brunei	(O-28)	VS5
Bulgaria	(E-20)	LZ
Burma	(A-26)	XZ
Burundi	(AF-36)	9U5
Cambodia	(A-26)	XU
Cameroon	(AF-36)	TJ
Canada	(NA-1 to 5)	VE
Canal Zone	(NA-7)	KZ5
Canary Is	(AF-33)	EA8
Canton Is	(O-31)	KB6
Cape Verde Is	(AF-35)	CR4
Caroline Is	(O-27)	KC6
Cayman Is	(NA-8)	ZF1
Celebes & Molucca Is	(O-28)	8F6
Central African Republic	(AF-36)	TL8
Ceuta y Melilla, Spanish	(A-33)	EA9
Ceylon	(A-22)	4S7
Chad	(AF-36)	TT8
Chagos Is	(AF-39)	VQ8
Channel Is	(E-14)	GC
Chatham Is	(O-32)	ZL
Chile	(SA-12)	CE
China	(A-23 & 24)	BY
Christmas Is	(O-29)	VK9
Clipperton Is	(NA-7)	FO8
Cocos Is	(NA-7)	TI9
Cocos-Keeling Is	(O-29)	VK9
Colombia	(SA-9)	HK
Comoro Is	(AF-39)	FH8
Congo, Republic of	(AF-36)	TN8
Congo, Republic of the	(AF-36)	9Q5
Cook Is	(O-32)	ZK1
Corsica	(E-15)	FC
Costa Rica	(NA-7)	TI
Crete	(E-20)	SV
Crozet Is	(AF-39)	FB8
Cuba	(NA-8)	CM, CO
Cyprus	(A-20)	ZC4
Czechoslovakia	(E-15)	OK, OL
Dahomey	(AF-35)	TY
Das Is	(A-21)	MP4D
Denmark	(E-14)	OZ
Dodecanese Is	(E-20)	SV5
Dominican Republic	(NA-8)	HI
Easter Is	(SA-12)	CEØA
Ecuador	(SA-10)	HC
Egypt	(AF-34)	SU
El Salvador	(NA-7)	YS
Enderbury Is	(O-31)	KB6
England	(E-14)	G
Ethiopia	(AF-37)	ET3
Faeroes Is	(E-14)	OY
Falkland Is	(SA-13)	VP8
Fanning Is	(O-31)	VR3
Fernando de Noronha	(SA-11)	PY7
Fiji Is	(O-32)	VR2
Finland	(E-15)	OH
France	(E-14)	F
French Polynesia	(O-32)	FO8
Gabon	(AF-36)	TR8
Galapagos Is	(SA-10)	HC8
Gambia	(AF-35)	ZD3
German Federal Rep, West	(E-14)	DC, DJ, DK, DL
German Dem. Rep, East	(E-14)	DM
Ghana	(AF-35)	9G1
Gibraltar	(E-14)	ZB2
Gilbert Is	(O-31)	VR1
Goa	(A-22)	CR8
Graham Land	(SA-13)	VP8
Greece	(E-20)	SV
Greenland	(NA-40)	OX
Guadeloupe Is	(NA-8)	FG7
Guantanamo Bay	(NA-8)	KG4
Guatemala	(NA-7)	TG
Guiana, French	(SA-9)	FY7
Guinea, Portuguese	(AF-35)	CR3
Guinea, Republic of	(AF-35)	7G1
Guyana	(SA-9)	8R
Haiti	(NA-8)	HH
Hawaii	(O-31)	KH6
Heard Is	(O-39)	VKØ
Honduras	(NA-7)	HR
Hong Kong	(A-24)	VS6
Howland Is	(O-31)	KB6
Hungary	(E-15)	HA, HG
Iceland	(E-40)	TF
Ifni	(AF-33)	EA9
India	(A-22)	VU
Indonesia	(O-28)	YB, YC, YD
Iran	(A-21)	EP
Iraq	(A-21)	YI
Ireland	(E-14)	EI
Isle of Man	(E-14)	GD
Israel	(A-20)	4X4, 4Z4
Italy	(E-15)	I
Ivory Coast	(AF-35)	TU2
Jamaica	(NA-8)	6Y5
Jan Mayen Is	(E-40)	JX
Japan	(A-25)	JA, JH
Jarvis Is	(O-31)	KP6
Java	(O-28)	8F1, 2, 3
Johnston Is	(O-31)	KJ6
Jordan	(A-20)	JY
Juan Fernandez Is	(SA-12)	CEØZ
Kamaran Is	(A-21)	VS9K
Kenya	(AF-37)	5Z4
Kerguelen Is	(AF-39)	FB8
Kermadec Is	(O-32)	ZL1
Korea	(A-25)	HM, HL9
Kuwait	(A-21)	9K2
Labrador	(NA-2)	VO2
Laccadive Is	(A-22)	VU4
Laos	(A-26)	XW8
Lebanon	(A-20)	OD5
Leeward Is. (West Indies)	(NA-8)	VP2
Lesotho	(AF-38)	7P8
Liberia	(AF-35)	EL, 5L
Libya	(AF-34)	5A
Liechtenstein	(E-14)	HBØ
Line Is	(O-31)	VR3
Little America	(SA-13)	KC4
Lord Howe Is	(O-30)	VK2
Luxembourg	(E-14)	LX
Macao	(A-24)	CR9
Macquarie Is	(O-30)	VKØ
Madeira Is	(AF-33)	CT3
Madagascar	(AF-39)	5R8
Malawi	(AF-37)	7Q7
Malaysia, Federation of	(A-28)	9M2
Maldive Is	(A-22)	VS9
Mali Republic	(AF-35)	TZ
Malta	(E-15)	9H1
Manchuria	(A-24)	BY9
Manihiki Is	(O-32)	HD1
Marcus Is	(A-27)	KG6I
Mariana Is	(O-27)	KG6
Marshall Is	(O-31)	KX6
Martinique	(NA-8)	FM7
Mauritania	(AF-35)	5T5
Mauritius Is	(AF-39)	VQ8
Mexico	(NA-6)	XE, XF
Midway Is	(O-31)	KM6
Monaco	(E-14)	3A
Mongolia	(A-23)	JT1
Morocco	(AF-33)	CN
Mozambique	(AF-37)	CR7
Muscat & Oman	(A-21)	MP4M
Namibia	(AF-38)	ZS3
Nauru Is	(O-31)	VK9
Navassa Is	(NA-8)	KC4
Nepal	(A-22)	9N1
Netherlands	(E-14)	PA, PE, PI
Netherlands Antilles	(SA-9)	PJ
New Caledonia	(O-32)	FK8
Newfoundland	(NA-5)	VO1
New Guinea, N.E.	(O-28)	VK9
New Hebrides	(O-32)	FU8, YJ
New Zealand	(O-32)	ZL
Nicaragua	(NA-7)	YN
Niger	(AF-35)	5U7
Nigeria	(AF-35)	5N2
Niue Is	(O-32)	ZK2
Norfolk Is	(O-32)	VK9
Northern Ireland	(E-14)	GI
Norway	(E-14)	LA
Pakistan	(A-21, 22)	AP
Palmyra Is	(O-31)	KP6
Panama	(NA-7)	HP
Papua Territory	(O-28)	VK9
Paraguay	(SA-11)	ZP
Peru	(SA-10)	OA
Philippines	(O-27)	DU
Phoenix Is	(O-31)	KB6
Pitcairn Is	(O-32)	VR6
Poland	(E-15)	SP
Portugal	(E-14)	CT1
Prince Edward & Marion Is	(AF-38)	ZS2
Puerto Rico	(NA-8)	KP4
Qatar	(A-21)	MP4Q
Reunion Is	(AF-39)	FR7
Revillagigedo Is	(NA-6)	XE4
Rhodesia	(AF-38)	ZE
Rio Muni	(AF-36)	EAØ
Rodriguez Is	(AF-39)	VQ8
Rumania	(E-20)	YO
Rwanda	(AF-36)	9X5
Ryukyu Is	(A-25)	KR6, KR8
Sabah	(O-28)	9M6
Saint Helena Is	(AF-36)	ZD7
Saint Martin Is	(NA-8)	FS7
Saint Pierre & Miquelon Is	(NA-5)	FP8
Samoa (U.S.)	(O-32)	KS6
Samoa, Western	(O-32)	5W1
San Andres & Providencia	(NA-7)	HKØ
San Marino	(E-15)	M1
Sao Tome & Principe Is	(A-36)	CR5
Sarawak	(O-28)	9M8
Sardinia	(E-15)	IS
Saudi Arabia	(A-21)	HZ, 7Z
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Senegal	(AF-35)	6W8
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Sicily	(E-15)	IT
Sierra Leone	(AF-35)	9L
Sikkim	(A-22)	AC3
Singapore	(A-28)	9V1
Socotra Is	(AF-37)	VS9
Solomon Is	(O-28)	VR4
Somali Republic	(AF-37)	60
Somaliland, French	(AF-37)	FL8
South Africa	(AF-38)	ZS
South Georgia Is	(SA-13)	VP8
South Orkney Is	(SA-13)	VP8
South Sandwich Is	(SA-13)	VP8
South Shetland Is	(SA-13)	CE9, VP8
South Yemen	(A-21)	70
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European Russian Soviet Federated Socialist Republic	(E-16)	UA1, 2, 3, 4, 6
Asiatic Russian S.F.S.R.	(A-18, 19)	UA9, Ø
Ukrainian S.S.R.	(E-16)	UB5
White Russian S.S.R.	(E-16)	UC2
Azerbaidzhan S.S.R.	(A-21)	UD6
Georgian S.S.R.	(A-21)	UF6
Armenian S.S.R.	(A-21)	UG6
Turkmen S.S.R.	(A-17)	UH8
Uzbek S.S.R.	(A-17)	UI8
Tadzhik S.S.R.	(A-17)	UJ8
Kazakh S.S.R.	(A-17)	UL7
Kirghiz S.S.R.	(A-17)	UM8
Karelo-Finnish S.S.R.	(E-16)	UN1
Moldavian S.S.R.	(E-16)	UO5
Lithuanian S.S.R.	(E-15)	UP
Latvian S.S.R.	(E-15)	UQ
Estonian S.S.R.	(E-15)	UR
Spain	(E-14)	EA
Spanish Sahara (Rio de Oro)	(A-33)	EA9
Sudan	(AF-34)	ST
Sumatra	(O-28)	8F4
Surinam	(SA-9)	PZ
Svalbard Is	(E-40)	JW
Swan Is	(NA-7)	KS4
Swaziland	(AF-38)	ZD5
Sweden	(E-14)	SK, SL, SM
Switzerland	(E-14)	HB
Syria	(A-20)	YK
Taiwan	(A-24)	BV
Tanzania	(AF-37)	5H3
Tasmania	(O-30)	VK7
Thailand	(A-26)	HS
Tibet	(A-23)	AC4
Timor Is. (Portuguese)	(O-28)	CR8
Tinian Is	(O-27)	KG6T
Togo	(AF-35)	5V
Tokelau Is	(O-31)	ZM7
Tonga (Friendly) Is	(O-32)	VR5
Trindade & Martim Vaz Is.	(SA-11)	PYØ
Trinidad & Tobago Is	(SA-9)	9Y4
Tristan de Cunha & Gough	(AF-38)	ZD9
Tromelin Is	(AF-39)	FB8
Trucial States	(A-21)	MP4T
Tunisia	(AF-33)	3V8
Turkey	(A-20)	TA, TC
Turks & Caicos Is	(NA-8)	VP5
Uganda	(AF-37)	5X5
United Nations, Geneva	(E-14)	4U
United States of America	(NA-3, 4, 5)	W, K
Upper Volta	(AF-35)	XT2
Uruguay	(SA-13)	CX
Vatican City	(E-15)	HV
Venezuela	(SA-9)	YV
Vietnam	(A-26)	3W8
Virgin Is	(NA-8)	KV4
Volcano & Bonin Is	(A-27)	KG6I
Wake Is	(O-31)	KW6
Wales	(E-14)	GW
Wallis & Futuna Is	(O-32)	FW8
West Irian	(O-28)	JZØ
Windward Is. (West Indies)	(NA-8)	VP2
Yemen	(A-21)	4W1
Yugoslavia	(E-15)	YU
Zambia	(AF-36)	9I, 9J
Zanzibar	(AF-37)	VQ1

CENSUS OF AMATEUR RADIO LICENSES OF THE WORLD*

Prefix	Country	Number of radio amateur licenses
A2	Botswana	9
AC3	Sikkim	1
AC4	Tibet	2
AC5	Bhutan	2
AP	Pakistan	36
BV	Taiwan (Formosa)	1
CE	Chile	2,118
CE9	South Shetland Is, Graham Land	26
CEØA	Easter Is	4
CEØZ	Juan Fernandez Is	10
CM,CO	Cuba	400
CN	Morocco	145
CP	Bolivia	493
CR3	Portuguese Guinea	3
CR4	Cape Verde Is	29
CR5	Sao Tome & Principe Is	2
CR6	Angola	255
CR7	Mozambique	227
CR8	Timor Is	1
CR9	Macao	1
CT1	Portugal	335
CT2	Azores Is	7
CT3	Madeira Is	18
CX	Uruguay	2,245
DC,DJ,DK,DL	West German Federal Republic	14,376
DM	East German Democratic Republic	2,684
DU	Philippines	143
EA	Spain	1,126
EA6	Balearic Is	19
EA8	Canary Is	136
EA9	Spanish Sahara, Ifni, Ceuta y Melilla	18
EI	Ireland	289
EL,5L	Liberia	86
EP	Iran	26
ET3	Ethiopia	12
F	France	4,384
FB8	Amsterdam, St. Paul, Crozet, Kerguelen, Tromelin Is	4
FG7	Guadeloupe Is	31
FH8	Comoro	3
FK8	New Caledonia	24
FL8	French Somaliland	8
FM7	Martinique	20
FO8	French Polynesia	39
FP8	St. Pierre & Miquelon Is	5
FR7	Reunion Is	19
FS7	Saint Martin	1
FU8,YJ	New Hebrides	8
FW8	Wallis & Futuna Is	1
FY	French Guiana	14
G	England	16,461
GC	Channel Is	79
GD	Isle of Man	42
GI	Northern Ireland	313
GM	Scotland	1,171
GW	Wales	715
HA, HG	Hungary	527
HB	Switzerland	872
HBØ	Liechtenstein	2
HC	Ecuador	502
HC8	Galapagos Is	6
HH	Haiti	35
HI	Dominican Republic	388
HK	Colombia	1,779
HKØ	San Andres & Providencia Is	20
HM,HL	Korea	161
HP	Panama	176
HR	Honduras	188
HS	Thailand	51
HV	Vatican City	2
HZ	Saudi Arabia	5
I	Italy	3,775
IS	Sardinia	52
IT	Sicily	169
JA,JH	Japan	11,943
JT1	Mongolia	3
JW	Svalbard Is	8
JX	Jan Mayen Is	14
K,W	United States of America (48 states)	281,000
KA	U.S.Personnel in Japan	150
KB6	Baker, Canton, Enderbury, Howland & Phoenix Is	12
KC4AA,US	Antarctica	12
KC6	Caroline Is	20
KG4	Guantanamo Bay, Cuba	22
KG6	Mariana Is	97
KG6I	Volcano Is	4
KH6	Hawaii	1,655
KJ6	Johnston Is	4
KL7	Alaska	1,443
KM6	Midway Is	15
KP4	Puerto Rico	947
KP6	Jarvis & Palmyra Is	5
KR6,8	Ryukyu Is. (Okinawa)	233
KS4	Swan Is	8
KS6	U. S. Samoa	40
KV4	Virgin Is	80
KW6	Wake Is	29
KX6	Marshall Is	78
KZ5	Canal Zone	164
LA	Norway	2,377
LU	Argentina	11,887
LX	Luxembourg	87
LZ	Bulgaria	395
M1	San Marino	4
MP4	Bahrein & Das Is, Muscat & Oman, Qatar, Trucial States	262
OA	Peru	1,077
OD5	Lebanon	78
OE	Austria	1,294
OH	Finland	2,059
OHØ	Aland Is	17
OK,OL	Czechoslovakia	1,266
ON	Belgium	1,214
OX	Greenland	42
OY	Faeroes Is	60
OZ	Denmark	2,859
PA,PE,PI	Netherlands	1,998
PJ	Netherlands Antilles - PJ2 - Curacao	32
	PJ3 - Aruba	26
	PJ4 - Bonaire	3
	PJ6 - Saba Is	1
	PJ7 - Saint Maarten	5
PX1	Andorra	12
PY	Brazil	10,196
PY7	Fernando de Noronha Is	6
PYØ	Trindade & Martim Vaz Is	9
PZ	Surinam	48
SL,SM	Sweden	3,923
SP	Poland	2,470
SU	Egypt	8
SV	Greece, Crete	97
TF	Iceland	44
TG	Guatemala	186
TI	Costa Rica	479
TI9	Cocos Is	3
TJ	Cameroon	19
TL8	Central African Republic	5
TN8	Republic of Congo (Brazzaville)	10
TR8	Gabon	8
TT8	Chad	9
TU2	Ivory Coast	44
TY	Dahomey	4
VE	Canada	11,960
	VE1 - 990	
	VE2 - 2,163	
	VE3 - 4,713	
	VE4 - 508	
	VE5 - 550	
	VE6 - 1,128	
	VE7 - 1,775	
	VE8 - 114	
	VEØ - 19	
VK	Australia	5,725
VO1	Newfoundland	199
VO2	Labrador	31
VP1	British Honduras	27
VP2	Windward-Leeward Is	142
VP5	Turks & Caicos Is	11
VP7	Bahama Is	50
VP8	Falkland, South Georgia, South Orkney, South Sandwich, South Shetland Is	37
VP9	Bermuda Is	46
VQ8	Mauritius & Rodriquez Is	28
VQ9	Seychelles Is	6
VR1	British Phoenix,Ellice,Gilbert & Ocean Is.	3
VR2	Fiji Is	24
VR3	Line Is	1
VR4	Solomon Is	6
VR6	Pitcairn Is	1
VS5	Brunei	6
VS6	Hong Kong	40
VS9	Aden, Kamaran, Maldive, Socotra Is	12
VU2	India	502
W,K	United States of America (See K,W)	
XE,XF	Mexico	2,586
	XE1 - 1,264	
	XE2 - 1,186	
	XE3 - 114	
	XE6 - 2	
	XEØ - 20	
XT2	Upper Volta	3
XW8	Laos	11
XZ	Burma	31
YA	Afghanistan	13
YB,YC,YD	Indonesia	56
YK	Syria	10
YN	Nicaragua	291
YO	Romania	1,188
YS	El Salvador	202
YU	Yugoslavia	1,928
YV	Venezuela	3,207
ZB2	Gibraltar	12
ZC4	Cyprus	25
ZD3	Gambia	2
ZD5	Swaziland	8
ZD7	Saint Helena	4
ZD8	Ascension Is	14
ZD9	Tristan da Cunha & Gough Is	2
ZE	Rhodesia	184
ZF1	Cayman Is	16
ZK1	Cook Is	9
ZK2	Niue Is	1
ZL	New Zealand	4,154
ZP	Paraguay	235
ZS	South Africa	2,810
ZS3	South-West Africa	69
3A	Monaco	19
3V8	Tunisia	3
4S7	Ceylon	57
4U	United Nations, Geneva	2
4W1	Yemen	9
4X4,4Z4	Israel	590
5A	Libya	54
5H3	Tanzania	16
5N2	Nigeria	15
5R8	Madagascar	18
5T5	Mauritania	3
5U7	Niger	7
5V	Togo	10
5W1	Western Samoa	9
5X5	Uganda	3
5Z4	Kenya	56
6O	Somali Republic	6
6W8	Senegal	35
6Y5	Jamaica	51
7G1	Republic of Guinea	2
7P8,ZS8	Lesotho	13
7Q7	Malawi	13
7X	Algeria	25
7Z, HZ	Saudi Arabia	2
8J	Antarctica	2
8P6	Barbados Is	67
8R	Guyana	21
9G1	Ghana	67
9H1	Malta	45
9I, 9J	Zambia	61
9K2	Kuwait	51
9L	Sierra Leone	3
9M2	Federation of Malaysia	81
9M6	Sabah	8
9M8	Sarawak	16
9N1	Nepal	1
9Q5	Republic of the Congo (Kinshasa)	228
9U5	Burundi	11
9V1	Singapore	57
9X5	Rwanda	46
9Y4	Trinidad & Tobago Is	140

* From the Fall 1969 Radio Amateur Callbook Magazines.
Absence of prefix and country indicates either that no licenses have been issued or have not been obtainable from official sources.

INTERNATIONAL RADIO AMATEUR PREFIXES

The following prefixes are listed in alphabetical order for convenience in locating the country when DX calls are heard.

A2C..... Botswana
AC3..... Sikkim
AC4..... Tibet
AC5..... Bhutan
AP..... Pakistan

BV..... Taiwan
BY..... China
BY9..... Manchuria

CE..... Chile
CE9..... South Shetland Is.
CEØA..... Easter Is.
CEØZ..... Juan Fernandez Is.
CM,CO..... Cuba
CN..... Morocco
CP..... Bolivia
CR3..... Portuguese Guinea
CR4..... Cape Verde Is.
CR5..... Sao Tome & Principe Is.
CR6..... Angola
CR7..... Mozambique
CR8..... Goa
CR8..... Timor Is.(Portuguese)
CR9..... Macao
CT1..... Portugal
CT2..... Azores Is.
CT3..... Madeira Is.
CX..... Uruguay

DC,DJ,DK,DL..... West German Federal Rep.
DM..... East German Democratic Rep.
DU..... Philippines

EA..... Spain
EA6..... Balearic Is.
EA8..... Canary Is.
EA9...Spanish Sahara,Ifni,Ceuta y Melilla
EAØ..... Rio Muni
EI..... Ireland
EL,5L..... Liberia
EP..... Iran
ET3..... Ethiopia

F..... France
FB8...Austral and Antarctic French Lands, Amsterdam,St.Paul,Crozet,Kerguelen, Tromelin Is.
FC..... Corsica
FG7..... Guadeloupe Is.
FH8..... Comoro Is.
FK8..... New Caledonia
FL8..... French Somaliland
FM7..... Martinique
FO8..... French Polynesia,Clipperton Is.
FP8..... St.Pierre & Miquelon Is.
FR7..... Reunion Is.
FS7..... Saint Martin
FU8..... New Hebrides
FW8..... Wallis & Futuna Is.
FY7..... French Guiana

G..... England
GC..... Channel Is.
GD..... Isle of Man
GI..... Northern Ireland
GM..... Scotland
GW..... Wales

HA,HG..... Hungary
HB..... Switzerland
HBØ..... Liechtenstein
HC..... Ecuador
HC8..... Galapagos Is.
HD1..... Manihiki Is.
HH..... Haiti
HI..... Dominican Republic
HK..... Colombia
HKØ..... San Andres & Providencia Is.
HM,HL9..... Korea
HP..... Panama
HR..... Honduras
HS..... Thailand
HV..... Vatican City
HZ..... Saudi Arabia

I..... Italy
IS..... Sardinia
IT..... Sicily

JA,JH..... Japan
JT1..... Mongolia
JW..... Svalbard Is.
JX..... Jan Mayen Is.
JY..... Jordan
JZØ..... West Irian

K..... United States of America
KA..... U.S.Personnel in Japan
KB6..... Baker,Canton,Enderbury, Howland & Phoenix Is.
KC4..... Navassa Is.
KC4AA,KC4US..... Antarctica
KC6..... Caroline Is.
KG1..... U.S.Personnel in Greenland
KG4..... Guantanamo Bay,Cuba
KG6..... Mariana Is.(Guam)
KG6I..... Marcus, Volcano & Bonin Is.
KG6S..... Saipan Is.
KG6T..... Tinian Is.
KH6..... Hawaii
KJ6..... Johnston Is.
KL7..... Alaska
KM6..... Midway Is.
KP4..... Puerto Rico
KP6..... Jarvis & Palmyra Is.
KR6,KR8..... Ryukyu Is.(Okinawa)
KS4..... Swan Is.
KS4B..... Serrana Bank & Roncador Cay
KS6..... U.S.Samoa
KV4..... Virgin Is.
KW6..... Wake Is.
KX6..... Marshall Is.
KZ5..... Canal Zone

LA..... Norway
LU..... Argentina
LX..... Luxembourg
LZ..... Bulgaria

M1..... San Marino
MP4..... Bahrain and Das Is., Muscat & Oman, Qatar, Trucial States

OA..... Peru
OD5..... Lebanon
OE..... Austria
OH..... Finland
OHØ..... Aland Is.
OK,OL..... Czechoslovakia
ON..... Belgium
OX..... Greenland
OY..... Faeroes Is.
OZ..... Denmark

PA,PE,PI..... Netherlands
PJ..... Netherlands Antilles
PJ2..... Curacao
PJ3..... Aruba
PJ4..... Bonaire
PJ5..... St. Eustatius
PJ6..... Saba Is.
PJ7..... Saint Maarten
PX1..... Andorra
PY..... Brazil
PY7..... Fernando de Noronha Is.
PYØ..... Trindade & Martim Vaz Is.
PZ..... Surinam

SK,SL,SM..... Sweden
SP..... Poland
ST..... Sudan
SU..... Egypt (United Arab Republic)
SV..... Crete,Greece
SV5..... Dodecanese Is.

TA,TC..... Turkey
TF..... Iceland
TG..... Guatemala
TI..... Costa Rica
TI9..... Cocos Is.
TJ..... Cameroon
TL8..... Central African Republic
TN8..... Republic of Congo (Brazzaville)
TR8..... Gabon
TT8..... Chad
TU2..... Ivory Coast
TY..... Dahomey
TZ..... Mali Republic

UA1,3,4,6..... European Russian Soviet Federated Socialist Republic
UA9,Ø..... Asiatic Russian S.F.S.R.
UB5..... Ukrainian S.S.R.
UC2..... White Russian S.S.R.
UD6..... Azerbaidzhan S.S.R.
UF6..... Georgian S.S.R.
UG6..... Armenian S.S.R.
UH8..... Turkmen S.S.R.
UI8..... Uzbek S.S.R.
UJ8..... Tadzhik S.S.R.
UL7..... Kazakh S.S.R.
UM8..... Kirghiz S.S.R.
UN1..... Karelo-Finnish S.S.R.
UO5..... Moldavian S.S.R.
UP..... Lithuanian S.S.R.
UQ..... Latvian S.S.R.
UR..... Estonian S.S.R.

VE..... Canada
VK..... Australia
VK2..... Lord Howe Is.
VK7..... Tasmania
VK9..... New Guinea, Papua, Christmas, Cocos-Keeling, Nauru, Norfolk Is.
VKØ..... Heard & Macquarie Is., Antarctica
VO1..... Newfoundland
VO2..... Labrador
VP1..... British Honduras
VP2..... Leeward & Windward Is.
VP5..... Turks & Caicos Is.
VP7..... Bahama Is.
VP8..... Falkland,S.Georgia,S.Orkney, S.Sandwich,S.Shetland Is.,Graham Land
VP9..... Bermuda Is.
VQ1..... Zanzibar
VQ8..... Chagos,Mauritius & Rodriguez Is.
VQ9..... Seychelles Is.
VR1....Br.Phoenix,Ellice,Gilbert & Ocean Is.
VR2..... Fiji Is.
VR3..... Fanning,Line Is.
VR4..... Solomon Is.
VR5..... Tonga Is.
VR6..... Pitcairn Is.
VS5..... Brunei
VS6..... Hong Kong
VS9..... Maldive,Kamaran,Socotra Is.
VU..... India
VU4..... Laccadive Is.
VU5..... Andaman & Nicobar Is.

W..... United States of America

XE,XF..... Mexico
XE4..... Revillagigedo Is.
XT2..... Upper Volta
XU..... Cambodia
XW8..... Laos
XZ..... Burma

YA..... Afghanistan
YB,YC,YD..... Indonesia
YI..... Iraq
YJ..... New Hebrides
YK..... Syria
YN..... Nicaragua
YO..... Rumania
YS..... El Salvador
YU..... Yugoslavia
YV..... Venezuela

ZA..... Albania
ZB2..... Gibraltar
ZC4..... Cyprus
ZD3..... Gambia
ZD5..... Swaziland
ZD7..... Saint Helena
ZD8..... Ascension Is.
ZD9..... Tristan da Cunha & Gough Is.
ZE..... Rhodesia
ZF1..... Cayman Is.
ZK1..... Cook Is.
ZK2..... Niue Is.
ZL..... New Zealand
ZL1..... Kermadec
ZM7..... Tokelau Is.
ZP..... Paraguay
ZS..... South Africa
ZS2..... Prince Edward & Marion Is.
ZS3..... Namibia (South-West Africa)

3A..... Monaco
3V8..... Tunisia
3W8..... Vietnam
3Y..... Norwegian Terr. in Antarctica

4S7..... Ceylon
4U..... United Nations,Geneva,Turin
4W1..... Yemen
4X4,4Z4..... Israel

5A..... Libya
5H3..... Tanzania
5N2..... Nigeria
5R8..... Madagascar (Malagasy Republic)
5T5..... Mauritania
5U7..... Niger
5V..... Togo
5W1..... Western Samoa
5X5..... Uganda
5Z4..... Kenya

6O..... Somali Republic
6W8..... Senegal
6Y5..... Jamaica

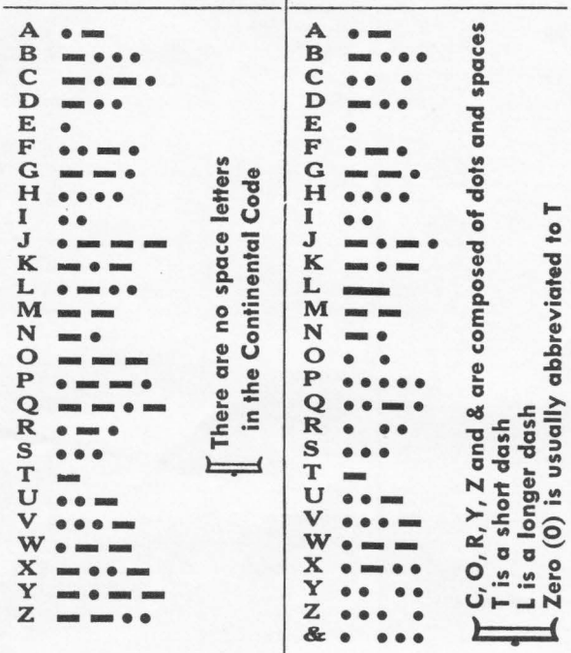
7G1..... Republic of Guinea
7O..... South Yemen
7P8..... Lesotho
7Q7..... Malawi
7X..... Algeria
7Z..... Saudi Arabia

8P6..... Barbados Is.
8R..... Guyana

9G1..... Ghana
9H1..... Malta
9I,9J..... Zambia
9K2..... Kuwait
9L1..... Sierra Leone
9M2..... Federation of Malaysia
9M6..... Sabah
9M8..... Sarawak
9N1..... Nepal
9Q5..... Republic of the Congo (Kinshasa)
9U5..... Burundi
9V1..... Singapore
9X5..... Rwanda
9Y4..... Trinidad & Tobago Is.

TELEGRAPH CODES

CONTINENTAL CODE	MORSE CODE
Used in radio, on submarine cables and abroad	Used on land lines in United States and Canada



	CONTINENTAL CODE	MORSE CODE
Figures		
1	•▬▬▬▬	•▬▬▬•
2	••▬▬▬	••▬▬••
3	•••▬▬	•••▬▬•
4	••••▬	••••▬
5	•••••	•••••
6	▬•••••	••••••
7	▬▬•••	▬▬•••
8	▬▬▬••	▬•••••
9	▬▬▬▬•	▬▬••▬
0	▬▬▬▬▬	▬▬▬▬▬
Punctuation		
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(-)	▬••••▬	•••• •▬••
(!)	None at present	▬▬▬•
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(")	•▬••▬•	(") ••▬▬• ▬▬•
		(") ••▬▬• ▬▬•▬•

EMERGENCY SIGNAL

QRRR (The land SOS) To be used only by a station in the affected area when calling with an emergency message.

Build *RELIABILITY* into your equipment with SPRAGUE

'LYTIC CAPACITORS

Twist-Lok® Electrolytics



Hermetically sealed in aluminum cases. Withstand high temperatures (85° C), high surge voltages, high ripple currents.



Atom® Electrolytics

Tiny, dependable single or multiple section units. Low leakage, long shelf life. Metal cases.



Littl-Lytic® Electrolytics

Ultra-small, excellent for transistorized circuitry. All-welded construction—no pressure joints to cause "opens". Long shelf life.



Transi-lytic® Capacitors

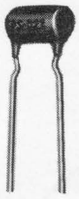
Miniature low-cost capacitors for transistorized and other low voltage circuitry. Special low-leakage current construction. Plastic case provides excellent resistance to high humidity.

DIFILM® CAPACITORS



Black Beauty® Molded Tubulars

Dual dielectric (polyester film and paper) combines best features of both. Solid impregnant, nothing to leak or drip. Molded phenolic case. Withstand high temperatures, high humidity.



Orange Drop® Dipped Tubulars

Dual dielectric (polyester film and paper), with solid impregnant. Double-dipped in epoxy resin. Radial leads, ideal for printed wiring boards.

CERAMIC CAPACITORS



Cera-Mite® Disc Types

Extremely wide range of capacitance values and voltage ratings. Available in general-application, high-K, temperature-stable, and temperature-compensating types.



Buttonhead Types

Flat disc capacitor element sealed in top of hex head. Screw stud for easy mounting. Low self-inductance, high self-resonant frequency. Ideal for by-pass or feed-thru applications.

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Exclusive 3-terminal feed-thru units which effectively by-pass vhf currents. Suppress TVI from transmitters, diathermy, line-conducted radiation, etc.

OIL CAPACITORS



Rectangular Oils

For transmitter power supplies and other high voltage applications. Hermetically sealed in rugged metal cases. Oil-impregnated, oil-filled. High insulation resistance.



Screwbase Oils

Cylindrical screwbase can for easy single hole mounting. Oil-impregnated, oil filled. Small size, will fit tight spaces.

WIREWOUND RESISTORS



Koolohm® Resistors

Insulated shell power resistors wound with ceramic-insulated wire. Completely moisture-proof. Ratings to 120 watts in inductive and non-inductive types.



Blue Jacket® Resistors

Vitreous enamel coating guards against humidity and failure from electrolysis. Ratings from 2 to 10 watts.

For complete data on these and other Sprague components, get Catalog C-617 from your Sprague Distributor, or write Sprague Products Co., 95 Marshall Street, North Adams, Mass. 01247

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SPRAGUE®
THE MARK OF RELIABILITY

A. R. R. L. COUNTRIES LIST

The ARRL Postwar Countries List is the official standard used in connection with the DX Century Club. To qualify for the DX Century Club Award, an applicant must submit confirmations from at least 100 different countries contacted after November 15, 1945, in accordance with the Postwar DXCC Rules. Copies of the DXCC Rules will be furnished by ARRL on request.

AC3 Sikkim
AC4 Tibet
AC Bhutan
AP East Pakistan
AP West Pakistan
BV Formosa
BY China
*C9 Manchuria
CE Chile
CE9AA-AM, FB8Y, KC4, LA, LU-Z, OR4, UA1, VKØ, VP8, ZL5, 8J... Antarctica
CE9AN-AZ (See VP8)
CEØA Easter Island
CEØX San Felix
CEØZ Juan Fernandez arch.
CM, CO Cuba
*CN2 Tangier
CN2, 8, 9 Morocco
CP Bolivia
CR 3, 5 Portuguese Guinea
CR4 Cape Verde Islands
CR5 Principe, Sao Thome
CR6 Angola
CR7 Mozambique
*CR8 Damao, Diu
*CR8 Goa
CR8, CR1Ø Portuguese Timor
CR9 Macao
CT1 Portugal
CT2 Azores
CT3 Madeira Islands
CX Uruguay
DJ, DK, DL, DM Germany
DU Philippine Islands
EA Spain
EA6 Balearic Islands
EA8 Canary Islands
EA9 Ifni
EA9 Rio de Oro
EA9 Spanish Morocco
EAØ Spanish Guinea
EI Republic of Ireland
EL Liberia
EP Iran
*ET2 Eritrea
ET3 Ethiopia
F France
FA (See 7X)
FB8Z Amsterdam & St. Paul Is.
FB8Y (See CE9AA-AM)
FB8W Crozet Is.
FB8X Kerguelen Islands
FB8 (See FH8)
FB8 (See 5R8)
FB8 (See FR7)
*FC Corsica
FD (See 5V)
FE8 (See TJ)
FF4 (See TU)
FF7 (See 5T)
FF8 (See TY)
FF8 (See TZ)
FF8 (See 5U7)
FF8 (See XT)
FF8 (See 6W8)
*FF8 French West Africa
FG7 Guadeloupe
FH8, FB8 Comoro Islands
*FI8 French Indo-China
FK8 New Caledonia
FL8 French Somaliland
FM7 Martinique
*FN French India
FO8 Clipperton Island
FO8 French Oceania
FO8M Maria Theresa
FP8 St. Pierre & Miquelon Is.
FQ8 (See TL)
FQ8 (See TT)
FQ8 (See TN)
FQ8 (See TR)
*FQ8 French Equatorial Africa
*FR7 Glorioso Islands
*FR7 Juan de Nova
FR7 Reunion
FR7 Tromelin
FS7 Saint Martin
FU8 (See YJ)
FW8 Wallis & Futuna Islands
FY7 French Guiana & Inini
G England
GC Guernsey & Dependencies
GC Jersey Island
GD Isle of Man
GI Northern Ireland
GM Scotland
GW Wales
HA, HG Hungary
HB Switzerland
HBØ, HE Liechtenstein
HC Ecuador
HC8 Galapagos Islands
HE (See HBØ)
HH Haiti
HI Dominican Republic
HK Colombia
HKØ Bajo Nuevo
HKØ Malpelo Is.
HKØ San Andres & Providencia
HKØ (See KS4B)
HL, HM Korea
HP Panama
HR Honduras
HS Thailand
HV Vatican
HZ, 7Z Saudi Arabia
I, IT Italy
*I1 Trieste
*I5 Italian Somaliland
IS1 Sardinia
JA, JH, KA Japan
JT Mongolia
JX, LA/P Jan Mayen
JY Jordan
JW, LA/P Svalbard
*JZØ Netherlands New Guinea
K, W United States of America
KA (See JA)
KA1 (See KG6I)
KB6 Baker, Howland & American Phoenix Islands
KC4 (See CE9AA-AM)
KC4 Navassa Island
KC6 Eastern Caroline Isls.
KC6 Western Caroline Isls.
KG1 (See 0X)
KG4 Guantanamo Bay
KG6 Guam
KG6I, KA1 Bonin & Volcano Islands
KG6I, KA1 Marcus Island
KG6R, S, T Mariana Islands
KH6 Hawaiian Islands
KH6 Kure Island
KJ6 Johnston Island
KL7 Alaska
KM6 Midway Islands
KP4 Puerto Rico
KP6 Palmyra Group, Jarvis Is.
KR6, 8 Ryukyu Islands
KS4B, HKØ Serrana Bank & Roncador Cay
KS4 Swan Islands
KS6 American Samoa
KV4 Virgin Islands
KW6 Wake Island
KX6 Marshall Islands
KZ5 Canal Zone
LA, LG Norway
LA/P (See JX, JW)
LA/G (See 3Y)
LA (See CE9AA-AM)
LU Argentina
LU-Z (See CE9AA-AM, P8, VP8)
LX Luxembourg
LZ Bulgaria
M1 (See 9A1)
MP4B Bahrein
MP4Q Qatar
MP4M, VS9O Sultanate of Muscat & Oman
MP4D, T Trucial Oman
OA Peru
OD5 Lebanon
OE Austria
OH, OF Finland
OHØ Aland Islands
OK Czechoslovakia
ON Belgium
OQ5, Ø (See 9Q5)
OR4 (See CE9AA-AM)
OX, KG1, XP Greenland
OY Faroe Islands
OZ Denmark
PA, PE, PI Netherlands
PJ Netherlands Antilles
PJ-M, S Sint Maarten
PK (See 8F)
*PK1, 2, 3 Java
*PK4 Sumatra
*PK5 Netherlands Borneo
*PK6 Celebes & Molucca Islands
PX Ancorra
PY Brazil
PYØ Fernando de Noronha
PYØ St. Peter & St. Paul's Rocks
PYØ Trindade & Martim Vaz Is.
PZ1 Surinam
SK, SL, SM Sweden
SP Poland
ST2 Sudan
SU Egypt
SV Crete
SV Dodecanese
SV Greece
TA Turkey
TF Iceland
TG Guatemala
TI Costa Rica
TI9 Cocos Island
TJ, FE8 Cameroun
*TL Central African Rep.
*TN Congo Rep.
*TR Gabon Rep.
*TT Chad Rep.
*TU Ivory Coast
*TY Dahomey Rep.
*TZ Mali Rep.
UA, UV, UW1-6, UN1 European Russian S.F.S.R.
UA1 Franz Josef Land
UA1 (See CE9AA-AM)
UA2 Kaliningradsk
UA, UV, UW9, Ø Asiatic R.S.F.S.R.
UB5, UT5, UY5 Ukraine
UC2 White Russian, S.S.R.
UD6 Azerbaijan
UF6 Georgia
UG6 Armenia
UH8 Turkoman
UI8 Uzbek
UJ8 Tadzhik
UL7 Kazakh
UM8 Kirghiz
*UN1 Karelo-Finnish Republic
UO5 Moldavia
UP2 Lithuania
UQ2 Latvia
UR2 Estonia
VE, VO, 3B, 3C Canada
VK Australia (inc. Tasmania)
VK Lord Howe Island
VK4 Willis Islands
VK9, ZC3 Christmas Island
VK9 Cocos Islands
VK9 Nauru Island
VK9 Norfolk Island
VK9 Papua Territory
VK9 Territory of New Guinea
VKØ (See CE9AA-AM)
VKØ Heard Island
VKØ Macquarie Island
VO (See VE)
*VO Newfoundland, Labrador
VP1 British Honduras
*VP2K Anguilla
*VP2A Antigua, Barbuda
*VP2V British Virgin Islands
*VP2D Dominica
*VP2G Grenada & Dependencies
*VP2M Montserrat
*VP2K St. Kitts, Nevis
*VP2L St. Lucia
*VP2S St. Vincent & Dependencies
VP3 (See 8R)
VP4 (See 9Y4)
VP5 (See ZF1)
VP5 (See 6Y5)
VP5 Turks & Caicos Islands
VP6 (See 8P)
VP7 Bahama Islands
VP8 (See CE9AA-AN)
VP8 Falkland Islands
VP8, LU-Z So. Georgia Is.
VP8, LU-Z So. Orkney Is.
VP8, LU-Z So. Sandwich Is.
VP8, LU-Z, CE9AN-AZ So. Shetland Is.
VP9 Bermuda Islands
VQ1 Zanzibar
VQ2 (See 9J2)
VQ3 (See 5H3)
VQ4 (See 5Z4)
VQ5 (See 5X5)
*VQ6 British Somaliland
VQ8 Agalega & St. Brandon
VQ8 Mauritius
VQ8 Rodriguez Island
VQ9 Aldabra
VQ9 Chagos Islands
VQ9 Desroches
VQ9 Farquhar
VQ9 Seychelles
VR1 British Phoenix Islands
VR1 Gilbert & Ellice Isls. & Ocean Island
VR2 Fiji Islands
VR3 Fanning & Christmas Is.
VR4 Solomon Islands
VR5 Tonga Islands
VR6 Pitcairn Island
*VS1, 9M4, 9V1 Singapore
VS1, 9M2 (See 9M2, 4)
VS2 (See 9M2)
*VS4 Sarawak
VS4, ZC5 (See 9M6, 8)
VS5 Brunei
VS6 Hong Kong
VS9A, P, S Aden & Socotra
VS9K Kamaran Is.
*VS9H Kuria Muria Isls.
VS9M (See 8Q)
VS9O (See MP4M)
VU Andaman & Nicobar Isls.
VU India
VU Laccadive Islands
W (See K)
XE, XF, 4A Mexico
XF4 Revilla Gigedo
XP (See 0X)
*XT Voltaic Rep.
XU Cambodia
XV5 (See 3W8)
XW8 Laos
XZ2 Burma
YA Afghanistan
YI Iraq
YJ, (FU8) New Hebrides
YK Syria
YN, YNØ Nicaragua
YO Rumania
YS Salvador
YU Yugoslavia
YV Venezuela
YVØ Aves Island
ZA Albania
ZB1 (See 9H1)
ZB2 Gibraltar
ZC3 (See VK9)
ZC4 (See 5B4)
ZC5 (See 9M6, 8)
*ZC5 British North Borneo
*ZC6 Palestine
ZD1 (See 9L1)
ZD2 (See 5N2)
ZD3 The Gambia
ZD4 (See 9G1)
*ZD4 Gold Coast, Togoland
ZD5, ZS7 Swaziland
ZD6 (See 7Q7)
ZD7 St. Helena
ZD8 Ascension Island
ZD9 Tristan da Cunha & Gough Island
ZE Rhodesia
ZF1, VP5 Cayman Islands
ZK1 Cook Islands
ZK1 Manihiki Islands
ZK2 Niue
ZL Auckland Is. & Campbell Is.
ZL Chatham Islands
ZL Kermadec Islands
ZL New Zealand
ZL5 (See CE9AA-AM)
ZM6 (See 5W1)
ZM7 Tokelaus
ZP Paraguay
ZS1, 2, 4, 5, 6 South Africa
ZS2 Prince Edward & Marion Is.
ZS3 Southwest Africa
ZS7 (See ZD5)
ZS8 (See 7P8)
ZS9 Botswana
1M Minerva Reefs
1S Spratly Is.
3A Monaco
3B, 3C (See VE)
3V8 Tunisia
3W8, XV5 Vietnam
3X, (7G) Rep. of Guinea
3Y, LA/G Bouvet Island
4A (See XE)
4S7 Ceylon
4U I.T.U. Geneva
4W Yemen
4X, 4Z Israel
5A Libya
5B4, ZC4 Cyprus
5H3, VQ3 Tanganyika
5N2, ZD2 Nigeria
5R8, FB8 Malagasy Rep.
*5T Mauritania
*5U7 Niger Rep.
5V Togo Rep.
5W1, ZM6 Western Samoa
5X5, VQ5 Uganda
5Z4, VQ4 Kenya
6O1, 2, 6 Somali Rep.
*6W8, FF8 Senegal Rep.
6Y5, VP5 Jamaica
*7G1 (See 3X)
7P8, ZS8 Lesotho
7Q7, ZD6 Malawi
7X, FA Algeria
7Z (See HZ)
*8F, PK Indonesia
8J (See CE9AA-AM)
8P, VP6 Barbados
8Q, VS9M Maldive Islands
8R, VP3 Guyana
8Z4 Saudi Arabia/Iraq Neutral Zone
8Z5 (See 9K3)
9A1, (M1) San Marino
*9G1, ZD4 Ghana
9H1, ZB1 Malta
9J2, VQ2 Zambia
9K2 Kuwait
9K3, 8Z5 Kuwait/Saudi Arabia Neutral Zone
9L1, ZD1 Sierra Leone
*9M2 Malaya
*9M2, 4 West Malaysia
9M4 (See VS1)
*9M6, 8 East Malaysia
9N1 Nepal
9Q5, OQ5, Ø Rep. of the Congo
*9S4 Saar
*9U5 Burundi
*9U5 Ruanda-Urundi
9V1 (See VS1)
*9X5 Rwanda
9Y4, VP4 Trinidad & Tobago
* Blenheim Reef
* Geyser Reef

*Consult current ARRL Operating Aid 7 for applicable footnote. Available free by request to ARRL Communications Dep't, 225 Main Street, Newington, Conn. 06111.

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TELEGRAPHERS' ABBREVIATIONS IN CURRENT USE

‿ denotes short space, as in American Morse o, ee; c, te; &, es.
— denotes letters sent together, as in ar, sent .-.-.

- A -

aa..... all after
ab all before
abl able
abt..... about
ads,adr address
adv advise
af..... Africa
aftrnn afternoon
agn again
ahd..... ahead
alng along
am amplitude modulation
ani..... any
anr another
ant antenna
app..... appreciate
ar end of message
as,as m wait, wait a minute
au..... fractions follow
aw auf wiedersehn (Ger), see you later

- B -

b..... be
b4 before
balun balanced-to-unbalanced
bc,bcl..... broadcast, broadcast listener
bcnu be seeing you
bd buenos dias (Sp), bad
bda..... birthday
bee,bo,bth both, as in "u5 bee", up both (Morse)
bfo beat frequency oscillator
bjr..... bon jour (Fr)
bk,bkg back,break,black,book,breaking
bkr breaker,circuit-breaker
bn..... been,brown,between,buenas noches (Sp)
bq answer to rq (request)
brg,brng bearing,heading
bsr..... bon soir (Fr)
btr better
buk book

- C -

c..... yes
cd card,could
cd,cud,cdnt could,couldn't
cfm,cfmg..... confirm,confirming
ck check
ckt,cct circuit
cl,clg..... call,calling,closed
clbk callbook
clix clicks
clr..... clear
cndx,condx,cdx conditions
cnt,cnti,cnty count, county
cnvn..... convention
coz,cos,cuz,becuz because
cpi copy
cq..... general call to all stations
cs call sign,call letters
cua,cuagn see you again
cul..... see you later
cum,cm,cmg come,coming
cupla a couple of
cw..... continuous wave,manual keying

- D -

da..... day
dbl double
dcn direction
dct..... direct
de from
df direction finder
dif,diff..... difference
dlr,dld dealer,deliver,delivered
dn,d down (in frequency)
dnt,dmi..... do not, don't mention it
dpe dope,information
dr dear
ds..... thanks,danke schon (Ger)
dsnt does not
dsw goodbye,do svidaniya (Russian)
dunno..... don't know
dx distance, or rare station
dxpdn dx expedition

- E -

ee m..... old man
eh ?
el,els antenna element(s)
em..... them
eni,enibdi,enihw any,anybody,anyhow
ere here
es,es..... and (from Morse "&", sent)
eta estimated time of arrival
etd estimated time of departure
eu..... Europe

- F -

fb,vfb..... fine business,good (enthusiastic approval)
fd field day,feed,food
fer..... for
fiver QSA-5
fld field,filed
flr..... floor
fm,frm from,frequency modulation
fnd friend, find, found
fni..... funny
foxes teleprinter test tapes
freq,fq frequency
fwd..... forward
fyi for your information

- G -

ga..... good afternoon,go ahead
gb good bye
gd good day, good
ges,gess..... guess
gg going
gl good luck

- G - (Cont.)

gld..... glad
gn,gng gone,green,going
gnd ground
gotta..... got to,have to,must
gp ground plane,group (word)
grs groups (as in msg code groups)
gud..... good
gtgs greetings
gv,gvg give,giving

- H -

hd,hrd..... had,hard,heard
hdg heading,antenna azimuth
hed he would
hi..... high, laughter, (sometimes !)
hlo hello
hlv hasta la vista (Sp),see you later
hpe,hpg..... hope,hoping
hpi happy
hpn,wa hpn happen,what happened
hq,hdqtrs..... headquarters
hr,hrg,hrs here,hear,hour,hearing,here is,hours
hv,hvnt,hvg have,haven't,having
hvi..... heavy
hw,hws how? how is?

- I -

i?..... ready? here goes the tape
id I would
ie clear? (response: i-go, e-wait)
im..... I'm,him,intermodulation
imi ?
info information
irpt..... I repeat

- K -

k..... go ahead,end of transmission
ka beginning of transmission (formal)
klix clicks
klvb..... que (ke) le vaya bien (Sp)
"That it goes well with you"
kn go ahead, but only the station(s) called,
I will answer no other calls,known
knw know

- L -

lkg..... looking
ll landline,telephone or telegraph
lng long
lotsa..... lots of
lp long path (long way around earth)
lsn listen
ltr..... letter,later
lv,lvg leave,leaving
lw long wave,"lone wolf" (independent DXer)

- M -

mag,rag..... magazine
mci,mci bcp merci, merci beaucoup (Fr), thanks
mgr manager
mi..... my
mil,mill,ma milliampere,typewriter
min minute,minimum
mk..... mark (opposite of space)
ml,mlg mail,mailing
mng morning,meaning
mni..... many
mnl manual
mo moment
msg..... message

- N -

n..... no
nd nothing doing
ng no good
nil..... nothing
nir lazy "nil"
nm nothing more,no more
nn..... noon
no know
nr near,number
nvr..... never
nw now

- O -

ob,eeb..... old boy
oc old chap
ok,eek all correct
ol..... old lady
om,eem old man
op,opr operator
opn,opg..... operation,operating
ot old timer

- P -

pa..... power amplifier
pbl,pbli probable,preamble,probably
pctcs practices
pd..... period,paid
pdc pure dc,clean note
pkg package,parking
plsr..... pleasure
ppgn propagation
ppl people
prtbl..... portable
pse,pls,psd please,pleased
psbl,psbli possible, possibly
psn,posn..... position
pt,ptd,ptg point,part,pointed,pointing
pwr power

- Q -

qhm..... tuning from high frequency to middle of band
qlf try sending with left foot awhile
qlm tuning from low frequency to middle of band
qlz..... operator too lazy
qmh tuning from middle frequency to high frequency
qml tuning from middle frequency to low frequency
qmt..... try mailing your tfc
qrnn man-made electrical noise
qsl mail card confirming qso
qsll..... send card after receiving mine
qst of interest to all amateurs

- R -

r..... received
rac rectified ac
rc rag chew
rcd,recd..... received
rcr,recr,rcvr,rx receiver
rd read (copy),red
rdi,rdy..... ready
rdo radio,radio station
re concerning
reg,regs..... regular,regulations
rito righto
rm room
rng..... running
rockbound,rockbnd crystal controlled, no vfo
rpt report,repeat
rq..... request
rst readability 1-5,strength 1-9,tone 1-9

- S -

sa,sez,sed,sa..... say,says,said,South America
sae self-addressed envelope
sase self-addressed stamped envelope
sb,ssb..... single sideband
sgd signed
shd,shud,shudn't should,shouldn't
sig,sigs..... signal(s),signature
simo simultaneously
sked schedule
sl..... see you later
sn soon,seen,signal/noise
sp short path (the closer great-circle path)
sri..... sorry
ss sweepstakes
ssn season,as in "ssns gtgs"
stn..... station
su I'll see you
sum some
sumbdi..... somebody
svc service
svl several
sw..... switch,short wave
sx dollar sign "$"

- T -

tbl,trbl..... trouble
tfc traffic,messages
thr there,their
tmw..... tomorrow
tng tuning,thing
tnk think
tnsmsn..... transmission
tr transit,position,there,transmit/receive
T/R transmit/receive
trix..... tricks
tt,tts that,that is
tu,tku,tnx,tks thank you, thanks
tv,tvi..... television,television interference
twx telegram
tx,trans transmitter

- U -

u,up..... you,upward in frequency
ufb vfb,very fine business (Rus)
uk United Kingdom
ul,ud..... you will,you would
undld undelivered
unhrd unheard
ur,urs..... your,yours
ut universal time,GMT,"Zebra" time

- V -

va..... signing off (same as sk)
vert vertical
vfb very fine business
vfo..... variable-frequency oscillator
vjo viejo (Sp),old man
vox voice-operated switch
vy,vri..... very
vxo variable crystal oscillator

- W -

w,wt..... watt
wa word after
wat,watsa what,what do you say?
wb..... word before
wd word,would
wee who?
wed..... we would
wh white
wid with
wilco..... will comply,will do
wk,wkg week, weak, work, working, QSOing
wri worry
wx,wea..... weather

- X -

xtl..... crystal
xtr,xmtr transmitter
xq fill, or repeat of unreceived copy

- Y -

yda..... yesterday
yl,xyl young lady,married young lady
yr year,your

- Z -

z Greenwich Mean Time, UT, "zebra"
zedder New Zealander
zi zone of the interior (continental USA)
zilch..... nothing

NUMBER CODE:

1 - a		6 - 6	
2 - u		7 - b	
3 - v		8 - d	
4 - 4		9 - n	
5 - e		0 - t	

73..... best wishes
88 love and kisses
99 (rare) keep out

W3AFM

73 Amateur Radio



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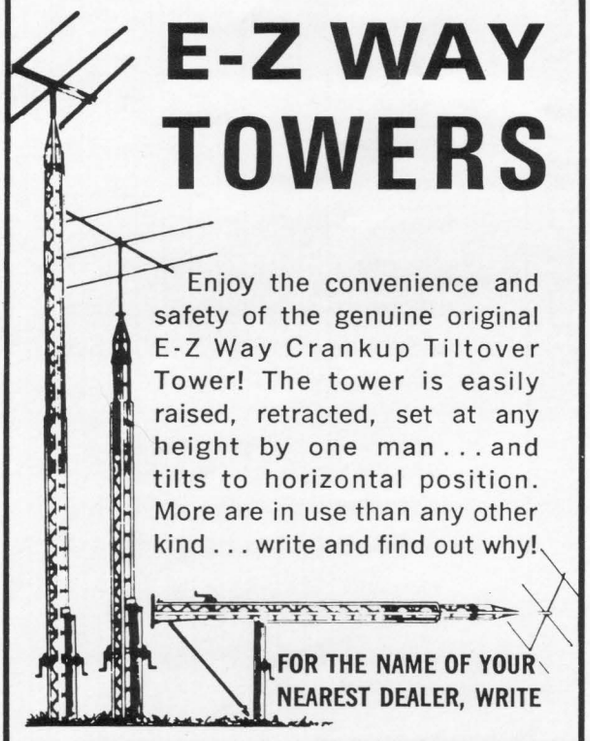
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ATLANTA, GA.		264	322	47	24	25	301	343	15	86	269	297	320	7	271	310	251	347	145	306	281	281	347	154	345	331	321	234	48	64	48	278	27	318	296	289	308	48	84
BIRMINGHAM, ALA.	82		326	50	31	40	304	356	26	84	268	299	328	17	270	312	246	5	125	314	287	281	10	142	355	338	0	219	52	67	53	278	37	333	298	290	309	53	83
BISMARCK, N. D.	132	137		92	97	115	209	114	105	124	167	205	133	104	198	273	165	119	132	148	150	233	123	135	109	108	131	151	99	111	102	217	106	134	237	249	282	107	119
BOSTON, MASS.	236	241	291		277	247	278	273	267	226	254	275	275	274	262	293	246	263	220	268	253	273	256	207	278	286	249	237	235	219	233	268	258	262	280	280	295	236	217
BUFFALO, N. Y.	208	217	291	92		206	273	264	237	192	241	269	268	261	252	290	231	243	191	258	237	267	231	184	274	286	225	219	118	160	134	261	199	248	276	276	293	159	174
CHARLESTON, W. VA.	208	223	307	61	24		287	309	359	174	251	282	293	345	260	300	238	293	180	279	251	274	270	174	316	311	245	223	66	108	71	269	31	275	286	282	301	80	143
CHEYENNE, WYO.	108	112	26	76	76	91		81	81	103	140	187	83	79	189	319	143	90	113	101	119	241	95	119	76	62	104	128	81	92	83	219	84	98	268	262	303	87	100
CHICAGO, ILL.	161	175	302	82	78	125	272		93	144	221	266	268	80	242	293	210	151	155	245	208	262	157	156	350	308	173	190	91	116	97	254	101	212	274	272	295	106	131
CLEVELAND, OHIO	197	209	297	80	55	179	277	277		176	240	272	275	310	252	293	228	245	180	261	235	268	226	175	290	296	219	214	95	136	105	262	127	250	278	277	296	124	156
COLUMBIA, S. C.	268	267	317	41	10	354	299	329	356		270	295	311	350	271	308	256	326	189	300	279	282	320	174	331	323	297	246	39	53	37	279	7	305	295	290	307	33	85
DALLAS, TEXAS	81	82	349	57	49	61	325	36	50	80		319	15	45	266	325	157	47	97	15	61	280	55	112	32	11	65	115	60	71	61	277	55	40	308	291	315	63	80
DENVER, COLORADO	103	107	22	73	72	87	6	75	77	99	134		74	74	189	325	138	84	109	91	112	246	90	116	70	55	98	124	78	88	80	224	80	91	283	267	308	83	96
DES MOINES, IOWA	134	144	318	80	78	105	271	84	87	123	197	262		81	231	297	187	105	135	197	171	257	116	141	69	5	133	165	87	104	91	247	92	137	273	270	296	97	115
DETROIT, MICH.	188	200	295	86	79	164	273	263	129	168	233	268	268		248	291	222	224	174	254	227	265	208	171	282	292	206	207	100	133	109	258	128	238	275	274	294	124	151
EL PASO, TEXAS	77	78	14	58	54	64	8	50	56	76	79	8	42	53		345	98	57	86	48	71	285	62	97	46	33	68	92	61	69	62	290	59	57	335	298	327	64	75
HELENA, MONTANA	112	116	85	84	88	100	133	97	93	108	134	141	105	92	162		136	101	115	115	122	203	105	119	94	91	111	127	89	98	92	180	94	109	179	224	283	95	104
HOUSTON, TEXAS	64	60	348	50	40	49	329	25	39	67	338	325	6	34	285	327		34	84	3	26	288	40	103	22	5	46	86	52	60	53	289	45	24	314	297	319	5	68
INDIANAPOLIS, IND.	166	185	308	72	58	110	281	332	62	143	234	276	290	41	250	298	220		157	267	226	267	168	158	338	316	188	199	80	107	85	261	80	251	281	277	298	94	127
JACKSONVILLE, FLA.	327	309	324	33	9	1	308	339	0	8	286	304	323	355	282	314	273	340		314	300	288	338	163	341	332	326	271	29	34	28	287	8	323	303	295	312	23	39
KANSAS CITY, MO.	120	129	332	72	67	90	288	60	73	111	196	278	15	66	236	306	184	82	126		157	262	95	134	50	9	113	157	78	93	81	253	79	97	282	275	302	85	105
LITTLE ROCK, ARK.	97	104	335	59	48	65	307	26	48	92	243	300	352	41	260	315	208	43	114	338		276	55	128	21	356	71	158	62	76	64	271	56	22	297	286	309	67	89
LOS ANGELES, CALIF.	81	82	41	62	61	70	52	62	65	79	88	57	60	62	100	19	96	67	87	67	81		70	94	59	52	76	92	65	71	66	95	67	69	35	319	348	68	78
LOUISVILLE, KY.	166	190	313	66	47	87	287	339	43	137	242	282	301	26	256	302	227	348	156	280	239	271		158	342	322	202	205	71	98	75	266	63	278	285	281	301	82	120
MIAMI, FLORIDA	337	326	329	22	3	355	313	342	356	355	302	310	329	353	291	318	290	342	345	321	315	293	341		342	335	334	298	18	16	15	293	1	330	308	299	315	11	13
MILWAUKEE, WIS.	162	175	297	87	88	132	267	170	107	147	218	261	253	99	239	290	207	157	156	235	204	259	160	157		298	172	188	98	121	103	251	111	203	271	270	293	113	135
MINNEAPOLIS, MINN.	145	154	291	91	96	123	248	125	108	135	193	242	184	105	227	283	186	132	144	189	175	248	137	146	114		148	169	99	116	104	237	110	159	259	261	287	111	127
NASHVILLE, TENN.	140	180	320	59	40	61	295	354	36	114	251	290	318	24	261	307	231	8	142	298	254	275	22	150	353	333		205	63	83	65	271	50	313	291	285	305	68	103
NEW ORLEANS, LA.	50	37	337	46	32	38	318	9	28	60	299	313	347	22	283	321	270	17	86	339	339	288	22	114	7	351	23		46	56	47	287	35	359	308	296	315	47	64
NEW YORK, N. Y.	233	240	296	54	303	251	281	281	280	223	255	278	280	286	262	294	244	269	213	271	253	274	259	202	287	293	251	237		205	229	269	269	266	283	282	297	235	208
NORFOLK, VA.	249	253	306	35	342	291	290	303	319	236	264	286	295	318	268	301	253	294	217	285	267	279	284	198	308	307	269	244	25		16	274	322	284	289	286	302	343	208
PHILADELPHIA, PA.	233	240	298	52	317	255	283	285	289	221	255	279	283	294	263	296	246	273	212	273	255	275	263	199	292	296	252	235	49	197		270	279	269	284	282	298	235	203
PHOENIX, ARIZONA	80	83	29	61	59	69	35	58	62	79	89	40	55	59	108	0	100	64	89	62	80	277	70	97	55	45	74	93	64	72	66		64	66	1	300	334	68	79
PITTSBURGH, PA.	210	221	300	72	18	213	280	286	308	188	246	276	281	310	257	295	235	264	189	268	244	271	246	181	296	299	234	222	85	140	96	265		261	281	279	297	123	165
ST. LOUIS, MO.	134	150	320	70	60	90	287	30	63	119	224	280	319	53	248	303	207	68	137	280	204	267	94	143	20	342	130	179	75	95	79	260	74		284	278	301	84	110
SALT LAKE CITY, UTAH	99	101	50	73	74	86	83	79	78	95	118	98	80	76	152	359	123	84	103	91	104	220	88	109	75	67	95	114	78	86	80	181	80	90		254	315	83	92
SAN FRANCISCO, CALIF.	86	86	54	66	67	75	70	70	70	83	96	75	70	68	109	39	101	73	90	77	88	136	77	96	67	62	81	97	69	76	71	114	71	77	66		1	73	81
SEATTLE, WASHINGTON	103	105	87	81	84	94	111	92	89	100	118	116	97	88	136	96	120	95	105	103	109	165	97	109	90	88	102	114	85	92	87	147	89	100	128	181		90	97
WASHINGTON, D. C.	233	240	302	52	342	263	285	293	307	215	256	281	287	308	263	298	245	280	205	277	257	275	268	192	300	302	254	235	53	163	53	270	305	273	285	283	300		189
WILMINGTON, N. C.	267	267	313	32	355	325	297	318	339	267	270	293	306	335	274	307	258	313	222	296	278	283	305	194	322	317	289	251	25	27	21	278	346	298	295	290	306	9	

The above table shows the great circle bearing in degrees, of various metropolitan areas in the United States in relationship to each other. This table should be used from left to right only. To find the great circle bearing between any two of the cities shown, start at the left and follow the horizontal line to the right until you come to the column directly under the name of the city that you desire to beam a radio signal to. For all practical purposes in the United States, Polaris (the North Star), is due north. To find this star, to calibrate a directional radio beam, look for the first star on a straight line with the two outer stars on the outside edge of the cup of the big dipper. This table was compiled from information furnished by the U. S. Coast and Geodetic Survey.

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WORLD TIME CONVERSION CHART IN HOURS

Greenwich Meridian Time. London, England.	Central Europe. Berlin, Geneva, Stockholm, Vienna.	Eastern Europe. Athens, Cape Town, Cairo, Moscow	Arabia, Armenia, Ethiopia, Madagascar.	Mauritius, Iran. Reunion Island.	Central Russia, Bombay, India.	Calcutta, Novosibirsk Russia, Tibet.	Sumatra. Thailand, Laos.	Philippines. Perth, Australia	Central Australia. Tokyo, Japan.	Eastern Australia. Melbourne, Sydney.	New Caledonia. New Zealand.	International Date Line. Fiji Islands.	Nome, Alaska. Samoa Islands.	Hawaii. Midway Islands.	Eastern Alaska. Dawson	Pacific Standard Time. Los Angeles, Seattle, Juneau.	Mountain Standard Time. Calgary, Denver, Phoenix.	Central Standard Time. Chicago, Costa Rica.	Eastern Standard Time. Montreal, New York, Peru.	Atlantic Standard Time. Argentina, Nova Scotia.	Greenland. Rio de Janeiro, Brazil.	Azores.	Iceland, Canary Islands.
0000	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM
0100	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night
0200	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM
0300	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM
0400	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM
0500	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM
0600	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM–
0700	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM
0800	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM
0900	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM
1000	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM
1100	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM
1200	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM
1300	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon
1400	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM
1500	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM
1600	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM
1700	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM
1800	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM
1900	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM
2000	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM
2100	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM
2200	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM
2300	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM

With this chart you can convert standard time in any time zone to GMT or tell what time it is in other parts of the world. To correctly use this chart visualize each horizontal line as a complete circle. From your time zone tracing horizontally to the right (Counter Clockwise) it will be tomorrow when you pass midnight and yesterday when you pass the International date line. To the left (Clockwise) it will be yesterday when you pass midnight and tomorrow when you pass the International date line. There is no change in date when you pass both midnight and the International date line going in one direction. For instance at 8 PM in New York Eastern Standard Time it is 2 AM tomorrow in Berlin, Germany and 11 AM tomorrow in Sydney, Australia. Always trace in the shortest direction from your time zone to find what time it is in any other zone.

INTERNATIONAL POSTAL RATES

The following postal rates cover QSL cards, first class letters and air mail letters **from** the United States **to** Countries outside of the United States and Possessions.

FIRST CLASS RATES are the rate for the first ounce. If the rate indicated is 13¢, add 8¢ for each additional ounce or fraction; if the rate indicated is 6¢ add 6¢ for each additional ounce or fraction.

AIR MAIL RATES are the rate for each **half** ounce, except where indicated.

QSL CARDS and AEROGRAMMES (air letter sheets) may be sent to any country in the world by air mail for 13¢ (exception: to Canada and Mexico, QSL cards are 8¢ by air mail).

INTERNATIONAL REPLY COUPONS of United States issue may be purchased at United States post offices for 15¢ each. Each coupon is exchangeable at a post office in any country for a stamp or stamps representing the international postage on a single rate surface letter. The column marked "(Air) IRC" indicates the number of international reply coupons required to prepay an air mail letter of the first weight unit **from** the countries indicated **to** the United States.

These rates include all revisions up to press time of this issue.

	QSL cards	First class	Air mail	(Air) IRC
Afghanistan	$.08	$.13	$.25	5
Aland Is. (Finland)	.08	.13	.20	2
Albania	.08	.13	.20	4
Algeria	.08	.13	.20	2
Andorra	.08	.13	.20	2
Angola	.08	.13	.25	3
Argentina	.08	.13	.15	3
Ascension Is. (Great Britain)	.08	.13	.15	3
Australia	.08	.13	.25	3
Austria	.08	.13	.20	2
Azores Is. (Portugal)	.08	.13	.20	2
Bahama Is. (Great Britain)	.08	.13	.15	
Balearic Is. (Spain)	.08	.13	.20	2
Barbados Is. (West Indies)	.08	.13	.15	3
Belgium	.08	.13	.20	2
Bermuda Is	.08	.13	.15	3
Bhutan	.08	.13	.25	4
Bolivia	.08	.13	.15	2
Botswana	.08	.13	.25	5
Brazil	.08	.13	.15	4
British Honduras	.08	.13	.15	2
Brunei	.08	.13	.25	7
Bulgaria	.08	.13	.20	3
Burma	.08	.13	.25	4
Burundi	.08	.13	.25	3
Cambodia	.08	.13	.25	3
Cameroon	.08	.13	.25	2
Canada	.05	.06	.10*	2
Canary Is. (Spain)	.08	.13	.20	2
Cape Verde Is. (Portugal)	.08	.13	.25	3
Cayman Is. (West Indies)	.08	.13	.15	3
Central African Republic	.08	.13	.25	2
Ceylon	.08	.13	.25	5
Chad	.08	.13	.25	2
Chile	.08	.13	.15	
China (Taiwan)	.08	.13	.25	3
China (Mainland)	.08	.13	.25	3
Colombia	.08	.13	.15	4
Comoro Is. (France)	.08	.13	.25	3
Congo (Brazzaville)	.08	.13	.25	2
Congo (Kinshasa)	.08	.13	.25	
Cook Is. (New Zealand)	.08	.13	.25	3
Corsica (France)	.08	.13	.20	2
Costa Rica	.08	.13	.15	2
Cuba	.08	.13	.15	4
Cyprus	.08	.13	.25	4
Czechoslovakia	.08	.13	.20	2
Dahomey	.08	.13	.25	2
Denmark	.08	.13	.20	2
Dominican Republic	.08	.13	.15	2
Ecuador	.08	.13	.15	3
Egypt (United Arab Republic)	.08	.13	.20	2
El Salvador	.08	.13	.15	2
Ethiopia	.08	.13	.25	3
Faeroe Is. (Denmark)	.08	.13	.20	2
Falkland Is. (Great Britain)	.08	.13	.20	3
Fiji Is. (Great Britain)	.08	.13	.25	4
Finland	.08	.13	.20	2
France	.08	.13	.20	2
French Guiana	.08	.13	.15	2
French Polynesia Is	.08	.13	.25	2
French Somaliland	.08	.13	.25	2
Gabon	.08	.13	.25	2
Gambia	.08	.13	.25	4
Germany, Western Zone	.08	.13	.20	2
Germany, Eastern Zone	.08	.13	.20	2
Ghana	.08	.13	.25	3
Gibralter (Great Britain)	.08	.13	.20	2
Gilbert and Ellice Is	.08	.13	.25	5
Great Britain	.08	.13	.20	2
Greece (incl. Crete)	.08	.13	.20	2
Greenland (Denmark)	.08	.13	.20	2
Guadaloupe Is	.08	.13	.15	2
Guatemala	.08	.13	.15	2
Guinea, Portuguese	.08	.13	.25	2
Guinea, Republic of	.08	.13	.25	2
Guyana	.08	.13	.15	3
Haiti	.08	.13	.15	5
Honduras	.08	.13	.15	3
Hong Kong	.08	.13	.25	5
Hungary	.08	.13	.20	3
Iceland	.08	.13	.20	2
Ifni (Spain)	.08	.13	.25	2
India	.08	.13	.25	4
Indonesia	.08	.13	.25	
Iran	.08	.13	.25	4
Iraq	.08	.13	.25	3
Ireland (Eire)	.08	.13	.20	3
Israel	.08	.13	.25	3
Italy	.08	.13	.20	2
Ivory Coast	.08	.13	.25	2
Jamaica	.08	.13	.15	2
Japan	.08	.13	.25	2
Jordan	.08	.13	.25	3
Kenya	.08	.13	.25	5
Korea	.08	.13	.25	3
Kuwait	.08	.13	.25	4
Laos	.08	.13	.25	
Lebanon	.08	.13	.25	3
Leeward Is. (West Indies)	.08	.13	.15	3
Lesotho	.08	.13	.25	5
Liberia	.08	.13	.25	5
Libya	.08	.13	.20	2
Liechtenstein	.08	.13	.20	2
Luxembourg	.08	.13	.20	2
Macao (Portugal)	.08	.13	.25	3
Madeira Is. (Portugal)	.08	.13	.20	2
Malagasy Republic (Madagascar)	.08	.13	.25	3
Malawi	.08	.13	.25	6
Malaysia	.08	.13	.25	5
Maldive Is	.08	.13	.25	5
Mali Republic	.08	.13	.25	2
Malta (Great Britain)	.08	.13	.20	3
Martinique (France)	.08	.13	.15	2
Mauritania	.08	.13	.25	2
Mauritius (Great Britain)	.08	.13	.25	3
Mexico	.05	.06	.10*	2
Morocco	.08	.13	.20	2
Mozambique	.08	.13	.25	3
Muscat and Oman	.08	.13	.25	4
Nauru Is	.08	.13	.25	3
Nepal	.08	.13	.25	5
Netherlands	.08	.13	.20	2
Netherlands Antilles	.08	.13	.15	1
New Caledonia (France)	.08	.13	.25	2
New Guinea, N.E. (Australia)	.08	.13	.25	3
New Hebrides Is	.08	.13	.25	2
New Zealand	.08	.13	.25	3
Nicaragua	.08	.13	.15	4
Niger	.08	.13	.25	2
Nigeria	.08	.13	.25	3
Northern Ireland	.08	.13	.20	2
Norway	.08	.13	.20	2
Pakistan	.08	.13	.25	2
Panama	.08	.13	.15	2
Papua Territory (Australia)	.08	.13	.25	3
Paraguay	.08	.13	.15	3
Persian Gulf Ports	.08	.13	.25	4
Peru	.08	.13	.15	
Philippines	.08	.13	.25	3
Pitcairn Is. (Great Britain)	.08	.13	.25	
Poland	.08	.13	.20	2
Portugal	.08	.13	.20	2
Qatar	.08	.13	.25	4
Reunion Is. (France)	.08	.13	.25	3
Rhodesia	.08	.13	.25	5
Rio Muni (Spain)	.08	.13	.25	3
Rumania	.08	.13	.20	4
Rwanda	.08	.13	.25	2
Ryukyu Is	.08	.13	.25	5
Sabah (Malaysia)	.08	.13	.25	5
St. Helena Is. (Great Britain)	.08	.13	.25	3
St. Pierre and Miquelon Is. (Fr.)	.08	.13	.15	2
Samoa, Western (Great Britain)	.08	.13	.25	4
Sarawak (Malaysia)	.08	.13	.25	5
Saudi Arabia	.08	.13	.25	3
Senegal	.08	.13	.25	2
Seychelles Is. (Great Britain)	.08	.13	.25	4
Sierra Leone	.08	.13	.25	3
Solomon Is. (Great Britain)	.08	.13	.25	5
Somali Republic	.08	.13	.25	
South Africa	.08	.13	.25	5
South-West Africa (Namibia)	.08	.13	.25	5
South Yemen	.08	.13	.25	5
Spain	.08	.13	.20	2
Spanish Sahara	.08	.13	.25	2
Sudan	.08	.13	.25	3
Surinam	.08	.13	.15	1
Sweden	.08	.13	.20	
Switzerland	.08	.13	.20	2
Syria	.08	.13	.25	3
Tanzania	.08	.13	.25	5
Tasmania (Australia)	.08	.13	.25	3
Thailand	.08	.13	.25	3
Timor (Portugal)	.08	.13	.25	4
Togo	.08	.13	.25	2
Tonga Is. (Great Britain)	.08	.13	.25	3
Trinidad and Tobago Is. (Britain)	.08	.13	.15	3
Tristan de Cunha & Gough Is	.08	.13	.25	5
Tunisia	.08	.13	.20	2
Turkey	.08	.13	.20	3
Turks & Caicos Is. (Great Britain)	.08	.13	.15	2
Uganda	.08	.13	.25	5
United States of America - Domestic rates only	.05	.06	.10*	
U. S. S. R.	.08	.13	.25	
Upper Volta	.08	.13	.25	2
Uruguay	.08	.13	.15	4
Vatican City	.08	.13	.20	2
Venezuela	.08	.13	.15	2
Vietnam	.08	.13	.25	2
West Irian (Indonesia)	.08	.13	.25	
Windward Is. (West Indies)	.08	.13	.15	3
Yemen	.08	.13	.25	
Yugoslavia	.08	.13	.20	3
Zambia	.08	.13	.25	5
Zanzibar	.08	.13	.25	5

* Rate per ounce or fraction

THE GEOGRAPHICAL CENTER OF THE

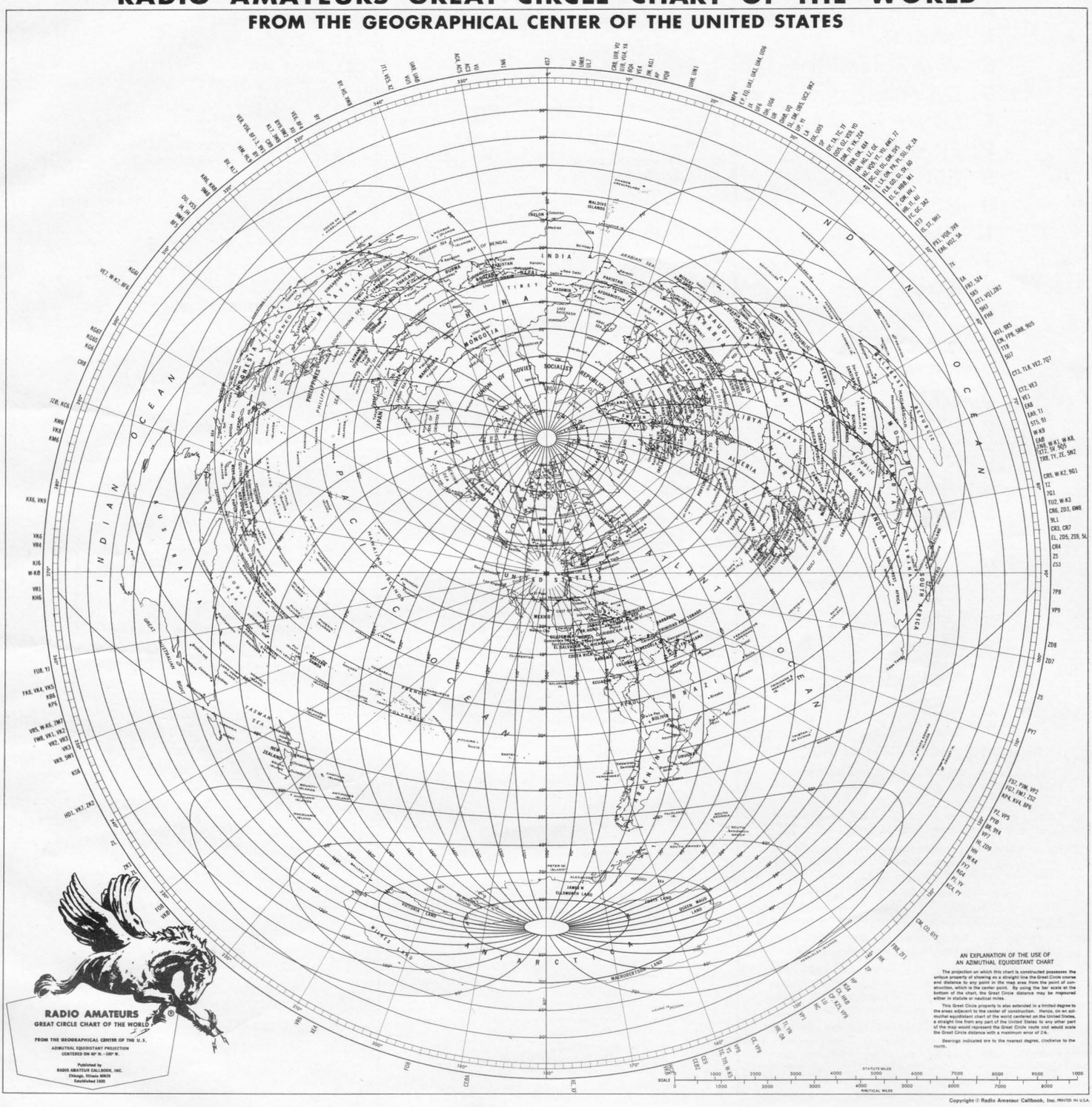
UNITED STATES

The table below shows the great circle bearing in degrees from the point indicated above to countries throughout the world having licensed radio amateurs. Where cities are shown the bearing to the nearest degree is given. These bearings were compiled from information supplied by the U. S. Coast and Geodetic Survey.

PREFIX	COUNTRY	BEARING
A2C	BOTSWANA, MAFEKING	91
AC3	SIKKIM	353
AC4	TIBET, LHASA	351
AC5	BHUTAN	351
AP	PAKISTAN, KARACHI	14
BV	TAIWAN, TAIPEI	323
BY	CHINA, CHUNGKING	337
	PEKING	334
	SHANGHAI	326
CE	CHILE, SANTIAGO	156
CEØA	EASTER IS.	190
CEØZ	JUAN FERNANDEZ IS.	163
CM,CO	CUBA, HAVANA	136
CN	MOROCCO, CASABLANCA	62
CP	BOLIVIA, LA PAZ	147
CR3	PORTUGUESE GUINEA	85
CR4	CAPE VERDE IS.	87
CR6	ANGOLA, NOVA LISBOA	84
CR7	MOZAMBIQUE, LOURENCO MARQUES	86
	MOZAMBIQUE	67
CR8	GOA	9
CR8	TIMOR,IS.	296
CR9	MACAO	328
CT1	PORTUGAL, LISBON	59
CT2	AZORES IS.	67
CT3	MADEIRA IS.	68
CX	URUGUAY, MONTEVIDEO	146
DC,DJ,DK	WEST GERMAN FEDERAL REP, BONN	41
DM	E. GERMAN DEMOCRATIC REP, BERLIN	37
DU	PHILIPPINES, MANILA	317
EA	SPAIN, MADRID	55
EA6	BALEARIC IS.	53
EA8	CANARY IS.	70
EA9	SPANISH SAHARA	70
EAØ	RIO MUNI	75
EI	IRELAND, DUBLIN	43
EL,5L	LIBERIA, MONROVIA	87
EP	IRAN, TEHRAN	24
ET3	ETHIOPIA, ADDIS ABABA	49
	ASMARA	45
F	FRANCE, PARIS	44
FB8	AMSTERDAM AND ST. PAUL IS.	58
	KERGUELEN IS.	143
FC	CORSICA	47
FG7	GUADELOUPE	116
FH8	COMORO IS.	61
FK8	NEW CALEDONIA, NOUMEA	255
FL8	FRENCH SOMALILAND, DJIBOUTI	43
FM7	MARTINIQUE	117
FO8	FRENCH POLYNESIA, TAHITI	230
	CLIPPERTON IS.	201
FP8	ST. PIERRE & MIQUELON IS.	63
FR7	REUNION IS.	58
FS7	SAINT MARTIN IS.	115
FU8	NEW HEBRIDES, VILA	258
FW8	WALLIS & FUTUNA IS.	252
FY7	FRENCH GUIANA, CAYENNE	118
G	ENGLAND, LONDON	43
GC	CHANNEL IS.	46
GD	ISLE OF MAN	42
GI	NORTHERN IRELAND, BELFAST	42
GM	SCOTLAND, GLASGOW	40
GW	WALES	44
HA,HG	HUNGARY, BUDAPEST	38
HB	SWITZERLAND, BERN	44
HBØ	LIECHTENSTEIN	43
HC	ECUADOR, QUITO	150
HC8	GALAPAGOS IS.	166
HH	HAITI, PORT-AU-PRINCE	126
HI	DOMINICAN REP, SANTO DOMINGO	122
HK	COLOMBIA, BOGOTA	141
HKØ	SAN ANDRES & PROVIDENCIA IS.	146
HM,HL9	KOREA, SEOUL	325
HP	PANAMA	146
HR	HONDURAS, TEGUCIGALPA	156
HS	THAILAND, BANGKOK	338
HV	VATICAN CITY	45
I	ITALY, ROME	45
	TRIESTE	42
IS	SARDINIA	49
IT	SICILY	48
JA,JH	JAPAN, TOKYO	316
JT1	MONGOLIA, ULAN BATOR	343
JY	JORDAN	38
JZØ	WEST IRIAN	289
KB6	BAKER IS.	262
KC4	NAVASSA IS.	130
KC6	CAROLINE IS.	294
KG4	GUANTANAMO BAY, CUBA	128
KG6	MARIANAS IS, GUAM	298
KG6I	VOLCANO IS.	308
KG6S	SAIPAN IS.	298
KH6	HAWAII, HONOLULU	268
KL7	ALASKA, ANCHORAGE	322
	FAIRBANKS	328
KM6	MIDWAY IS.	286
KP4	PUERTO RICO	119
KR6,8	RYUKYU IS, OKINAWA	319
KS4	SWAN IS.	146
KS6	U S SAMOA	248
KV4	VIRGIN IS.	117
KW6	WAKE IS.	288
KX6	MARSHALL IS.	280
KZ5	CANAL ZONE	145
LA	NORWAY, OSLO	32
	SVALBARD IS.	13
	JAN MAYEN IS.	24
LU	ARGENTINA, BUENOS AIRES	148
LX	LUXEMBOURG	42
LZ	BULGARIA, SOFIA	39
M1	SAN MARINO	44
MP4	MUSCAT & OMAN, MASQAT	23
OA	PERU, LIMA	154
OD5	LEBANON, BEIRUT	37
OE	AUSTRIA, VIENNA	39
OH	FINLAND, HELSINKI	26
OHØ	ALAND IS.	28
OK,OL	CZECHOSLOVAKIA, PRAGUE	38
ON	BELGIUM, BRUSSELS	42
OX	GREENLAND, GODTHAAB	32
OY	FAEROES IS.	35
OZ	DENMARK, COPENHAGEN	34
PA,PE,PI	NETHERLANDS, AMSTERDAM	40
PJ	NETHERLANDS ANTILLES	128
PJ2M	SINT MAARTEN	115
PX1	ANDORRA	50
PY	BRAZIL, BRASILIA	129
	RIO DE JANEIRO	130
	NATAL	112
PYØ	TRINDADE & MARTIM VAZ IS.	118
PZ	SURINAM	119
SK,SL,SM	SWEDEN, STOCKHOLM	29
SP	POLAND, WARSAW	34
ST	SUDAN, KHARTOUM	50
SU	EGYPT, CAIRO	42
SV	GREECE, ATHENS	42
SV5	DODECANESE IS.	41
TA,TC	TURKEY, ANKARA	35
TF	ICELAND, REYKJAVIK	34
TG	GUATEMALA, GUATEMALA CITY	162
TI	COSTA RICA	153
TJ	CAMEROON, YAOUNDE	74
TL8	CENTRAL AFRICAN REP, BANGUI	68
TN8	REPUBLIC OF CONGO, BRAZZAVILLE	78
TR8	GABON, LIBREVILLE	78
TT8	CHAD, FT. LAMY	65
TU2	IVORY COAST, ABIDJAN	83
TZ	MALI REPUBLIC, BAMAKO	80
UA1	SOVIET UNION, MOSCOW	23
UA9,Ø	ASIATIC RUSSIAN S.F.S.R.	346
UB5	UKRAINIAN S.S.R.	30
UC2	WHITE RUSSIAN S.S.R.	30
UD6	AZERBAIDZHAN S.S.R.	26
UF6	GEORGIAN S.S.R.	26
UG6	ARMENIAN S.S.R.	27
UH8	TURKMEN S.S.R.	18
UI8	UZBEK S.S.R.	11
UJ8	TADZHIK S.S.R.	10
UL7	KAZAKH S.S.R.	13
UM8	KIRGHIZ S.S.R.	5
UN1	KARELO-FINNISH S.S.R.	19
UO5	MOLDAVIAN S.S.R.	33
UP	LITHUANIAN S.S.R.	30
UQ	LATVIAN S.S.R.	29
UR	ESTONIAN S.S.R.	27
VE1	CANADA, HALIFAX	68
VE2	MONTREAL	65
VE3	TORONTO	69
VE4	WINNIPEG	5
VE5	SASKATOON	338
VE6	EDMONTON	329
VE7	VANCOUVER	307
VE8	FORT NELSON	329
VK1	AUSTRALIA, CANBERRA	252
VK2	SYDNEY	253
VK3	MELBOURNE	251
VK4	BRISBANE	258
VK5	ADELAIDE	257
VK6	PERTH	275
VK7	TASMANIA, HOBART	244
VK8	DARWIN	288
VK9	NORFOLK IS.	249
	NEW GUINEA, PAPUA, PORT MORESBY	278
VKØ	HEARD IS.	161
	MACQUARIE IS.	226
VO1	NEWFOUNDLAND, ST JOHNS	61
VO2	LABRADOR, HOPEDALE	45
VP1	BRITISH HONDURAS	155
VP2	ANTIGUA	115
VP5	TURKS & CAICOS IS.	120
VP7	BAHAMA IS.	123
VP8	FALKLAND IS.	156
	SOUTH GEORGIA IS.	147
	SOUTH ORKNEY IS.	155
VP9	BERMUDA IS.	95
VQ1	ZANZIBAR	60
VQ8	CHAGOS IS.	17
	MAURITIUS & RODRIGUEZ IS.	53
VQ9	SEYCHELLES IS.	40
VR1	GILBERT, ELLICE & OCEAN IS.	270
VR2	FIJI IS.	252
VR3	FANNING & LINE IS.	253
VR4	SOLOMON IS.	270
VR5	TONGA IS.	245
VR6	PITCAIRN IS.	210
VS5	BRUNEI	317
VS6	HONG KONG	328
VU	INDIA, BOMBAY	9
	CALCUTTA	353
	NEW DELHI	4
VU4	LACCADIVE IS.	10
VU5	ANDAMAN & NICOBAR IS.	346
XE,XF	MEXICO, MEXICO CITY	182
XE4	REVILLAGIGEDO IS.	211
XW8	LAOS	338
XZ	BURMA, RANGOON	343
YA	AFGHANISTAN, KANDAHAR	14
YI	IRAQ, BAGHDAD	31
YJ	NEW HEBRIDES, VILLA	261
YK	SYRIA	34
YN	NICARAGUA, MANAGUA	155
YU	RUMANIA, BUCHAREST	36
YS	EL SALVADOR, SAN SALVADOR	160
YU	YUGOSLAVIA, BELGRADE	39
YV	VENEZUELA, CARACAS	127
ZA	ALBANIA, TIRANA	42
ZB2	GIBRALTAR	59
ZC4	CYPRUS	38
ZD3	GAMBIA	85
ZD5	SWAZILAND	88
ZD7	SAINT HELENA	101
ZD8	ASCENSION IS.	100
ZD9	TRISTAN DA CUNHA & GOUGH IS.	122
ZE	SOUTHERN RHODESIA, SALISBURY	78
ZK1	COOK IS.	235
ZK2	NIUE IS.	244
ZL1	NEW ZEALAND, AUCKLAND	238
ZL2	WELLINGTON	235
ZL3	CHRISTCHURCH	233
ZL4	DUNEDIN	232
ZP	PARAGUAY, ASUNCION	142
ZS	SOUTH AFRICA, CAPE TOWN	104
	DURBAN	92
	JOHANNESBURG	90
ZS2	PRINCE EDWARD & MARION IS.	117
ZS3	SOUTH-WEST AFRICA, WINDHOEK	93
3A	MONACO	47
3V8	TUNISIA, TUNIS	50
3W8	VIETNAM, SAIGON	329
4S7	CEYLON, COLOMBO	2
4W1	YEMEN	40
4X4,4Z4	ISRAEL	38
5A	LIBYA, TRIPOLI	52
5H3	TANZANIA, DAR ES SALAAM	60
5N2	NIGERIA, LAGOS	77
5R8	MALAGASY REPUBLIC, TANANARIVE	64
5T5	MAURITANIA, NOUAKCHOTT	80
5U7	NIGER, NIAMEY	73
5V	TOGO	79
5W1	WESTERN SAMOA	249
5X5	UGANDA	60
5Z4	KENYA, NAIROBI	58
6O	SOMALI REPUBLIC, MOGADISHU	47
6W8	SENEGAL, DAKAR	84
6Y5	JAMAICA	133
7G1	REPUBLIC OF GUINEA, CONAKRY	86
7O	SOUTH YEMEN, ADEN	41
7P8	LESOTHO	94
7Q7	MALAWI, ZOMBA	72
7X	ALGERIA, ALGIERS	54
7Z,HZ	SAUDI ARABIA, MECCA	40
8F1,2,3	JAVA, BATAVIA	319
8F4	SUMATRA	326
8F5	BORNEO	312
8F6	CELEBES & MOLUCCA IS.	307
8P6	BARBADOS	117
8R	GUYANA, GEORGETOWN	121
9G1	GHANA, ACCRA	80
9H1	MALTA	49
9I,9J	ZAMBIA, LUSAKA	78
9K2	KUWAIT	30
9L1	SIERRA LEONE, FREETOWN	86
9M2	FEDERATION OF MALAYSIA	333
9M6	SABAH, NORTH BORNEO	315
9M8	SARAWAK	320
9N1	NEPAL, KATMANDU	356
9Q5	REP. OF THE CONGO, KINSHASA	78
	LUBUMBASHI	75
	KISANGANI	66
9U5	BURUNDI	65
9V1	SINGAPORE	328
9X5	RWANDA	65
9Y4	TRINIDAD & TOBAGO IS.	121

RADIO AMATEURS GREAT CIRCLE CHART OF THE WORLD

FROM THE GEOGRAPHICAL CENTER OF THE UNITED STATES



This map available in 4 colors, size 30" x 25". See inside front cover and page 19.

ARRL Phonetic Alphabet

A	ADAM
B	BAKER
C	CHARLIE
D	DAVID
E	EDWARD
F	FRANK
G	GEORGE
H	HENRY
I	IDA
J	JOHN
K	KING
L	LEWIS
M	MARY
N	NANCY
O	OTTO
P	PETER
Q	QUEEN
R	ROBERT
S	SUSAN
T	THOMAS
U	UNION
V	VICTOR
W	WILLIAM
X	X-RAY
Y	YOUNG
Z	ZEBRA

ON GOOD PHONE OPERATING

1. ***Listen much . . . with care.*** **Avoid distractions in your operating room. Tune the band well after each call.**
2. ***Time your calls; monitor your own frequency.*** **Call only when a station is free.**
3. ***Make short calls, with breaks to listen.*** **Speak clearly, at a steady, modest rate. Three short calls are better than one long one.**
4. ***Use push-to-talk technique . . . speak near the mike.*** **Watch the modulation indicator. Keep local background noise at a minimum.**
5. ***Make notes. Avoid missing points for comment.*** **Jot down topics to avoid repeats.**
6. ***Talk in connected thoughts and phrases.*** **Notes will help avoid mixing up subjects. Push-to-talk technique will keep brother amateurs from calling you a monologuist.**
7. ***Speak naturally.*** **QSOs need not be cut and dried. Make them interesting. Avoid exhibitionism. Use proper operating form to promote efficiency in communication and add respect and prestige for your station.**

Use of this standard list is recommended by ARRL. Haphazard selection of words often results in confusion. A degree of uniformity in use of phonetic words reflects favorably on your individual operating, and on the whole amateur service.

ARRL Communications Department.

SPECIAL ARRL QN SIGNALS FOR NET USE

QNA*	Answer in prearranged order.
QNB*	Act as relay Between and
QNC	All net stations Copy. I have a message for all net stations.
QND*	Net is Directed (controlled by net control station).
QNE*	Entire net please stand by.
QNF	Net is Free (not controlled).
QNG	Take over as net control station.
QNH	Your net frequency is High.
QNI	Net stations report In.* I am reporting into the net.
QNJ	Can you copy me? Can you copy ?
QNK*	Transmit messages for to
QNL	Your net frequency is Low.
QNM*	You are QRMing the net. Please stand by.
QNN	Net control station is * What station has net control?
QNO	Station is leaving the net.
QNP	Unable to copy you (or).
QNQ*	Move frequency to . . . and wait for . . . to finish handling traffic. Then send him traffic for
QNR*	Answer . . . and Relay (or Receive) traffic.
QNS	Following Stations are in the net.* (Follow with list). Request list of stations in the net.
QNT	Leaving net Temporarily (or for . . . minutes).
QNU*	The net has traffic for YOU. Stand by.
QNV*	Establish contact with on this frequency. If successful, move to . . . and send him traffic for . . .
QNW	How do I route messages for ?
QNX	You are excused from the net.* Request to be excused from the net.
QNY*	Shift to another frequency (or to . . . kc.) to clear traffic with
QNZ	Zero beat your signal with mine.

*For use only by Net Control Station

Notes on the Use of QN Signals

1. The QN signals listed above are special ARRL signals for use in amateur c.w.nets only. Other meanings that may be used in other services do not apply.
2. Some QN signals are for use by net control stations only; these are marked with an asterisk (*). Others have slightly different meanings when used by the NCS and net stations; in this case, the meaning when used by the NCS is marked with an asterisk (*
3. Some QN signals have two meanings, the difference depending on how or by whom used. Examples: (a) QNC, when used as a preface to transmission of a message, carries its first meaning; when used by a station reporting into the net (e.g.,W9NCS DE W9NET QNI QNC), it carries its second meaning. (b) QNI, when used by the NCS, is a request for stations to report in; when used by a net station, it means that this station is reporting in. (c) QNJ, when used alone, carries its first meaning; when followed by a call, it carries the second meaning.
4. QN signals are never followed by a question mark, even though the meaning may be interrogatory.
5. Do not use QN signals on phone nets. Say it with words.
6. Use QN signals in nets only. They are not for use in casual amateur conversation.
7. Make frequent use of standard international "Q" signals in traffic nets, for meanings not covered by QN signals. Examples: QRU, QRV, QSV, QTA, QTB, QTX, etc.

ARRL Communications Department

FEDERAL COMMUNICATIONS COMMISSION EXAMINATION POINTS

Examinations for commercial and amateur radio operator licenses are conducted at the following F.C.C. field offices on the days designated by the Engineer in Charge of each office.
Specific dates should be obtained from the Engineer in Charge.

Dist. No.	Office Location
1 -	BOSTON, MASSACHUSETTS 02109 1600 Customhouse, India & State Streets
2 -	NEW YORK, NEW YORK 10014 748 Federal Building, 641 Washington Street
3 -	PHILADELPHIA, PENNSYLVANIA 19106 1005 U.S.Customhouse, 2nd & Chestnut Streets
4 -	BALTIMORE, MARYLAND 21202 415 U. S. Customhouse, Gay & Lombard Streets
5 -	NORFOLK, VIRGINIA 23510 405 Federal Building, Granby & York Streets
6 -	ATLANTA, GEORGIA 30303 2010 Atlanta Merchandise Mart,240 Peachtree St,NE
6S -	SAVANNAH, GEORGIA 31402 238 Post Office Building, York & Bull Streets
7 -	MIAMI, FLORIDA 33130 919 Federal Building, 51 S. W. First Avenue
7T -	TAMPA, FLORIDA 33602 738 Federal Building, 500 Zack Street
8 -	NEW ORLEANS, LOUISIANA 70130 829 Federal Building South, 600 South Street
8M -	MOBILE, ALABAMA 36602 439 U. S. Court House, 113 St. Joseph Street
9 -	HOUSTON, TEXAS 77002 5636 Federal Building, 515 Rusk Avenue
9B -	BEAUMONT, TEXAS 77701 239 Federal Building, 300 Willow Street
10 -	DALLAS, TEXAS 75202 707 Thomas Building, 1314 Wood Street
11 -	LOS ANGELES, CALIFORNIA 90012 U. S. Courthouse, 312 N. Spring Street
11SD -	SAN DIEGO, CALIFORNIA 92101 Fox Theatre Building, 1245 Seventh Avenue
11SP -	SAN PEDRO, CALIFORNIA 90731 300 South Ferry Street
12 -	SAN FRANCISCO, CALIFORNIA 94111 323A Custom House, 555 Battery Street
13 -	PORTLAND, OREGON 97205 314 Multnomah Building, 319 S. W. Pine Street
14 -	SEATTLE, WASHINGTON 98104 8012 Federal Office Building, 909 First Avenue
15 -	DENVER, COLORADO 80202 504 New Customhouse,19th bet.California & Stout St.
16 -	ST. PAUL, MINNESOTA 55102 691 Federal Building, 4th & Roberts Streets
17 -	KANSAS CITY, MISSOURI 64106 1703 Federal Building, 601 East 12th Street
18 -	CHICAGO, ILLINOIS 60604 1872 U. S. Courthouse, 219 S. Dearborn Street
19 -	DETROIT, MICHIGAN 48226 1029 Federal Building, Washington & LaFayette St.
20 -	BUFFALO, NEW YORK 14203 328 Federal Office Building, Ellicott & Swan Streets
21 -	HONOLULU, HAWAII 96808 502 Federal Building, 335 South King Street
22 -	SAN JUAN, PUERTO RICO 00903 322 U. S. Post Office & Courthouse, P.O.Box 2987
23 -	ANCHORAGE, ALASKA 99501 53 U. S. Post Office Building, 4th Av bet.F & G St.
24 -	WASHINGTON, D.C. 20554 Room 216, 1919 M Street, N.W.
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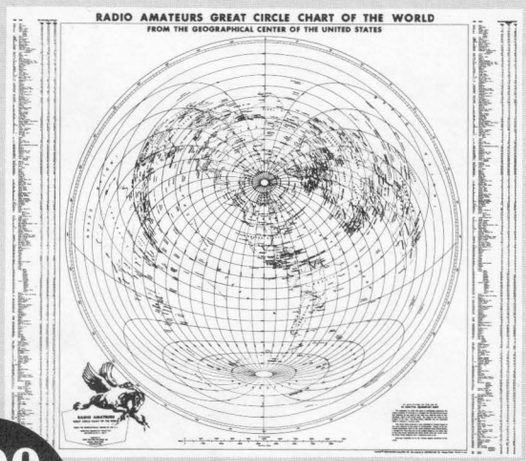
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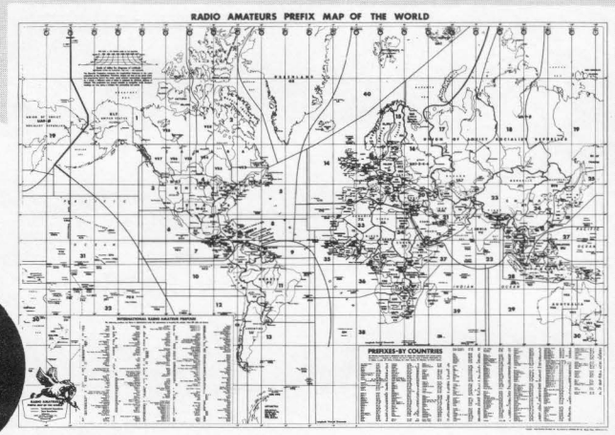


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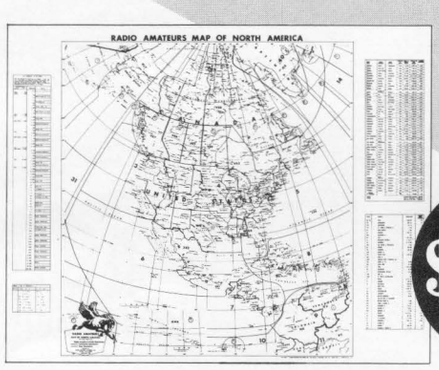


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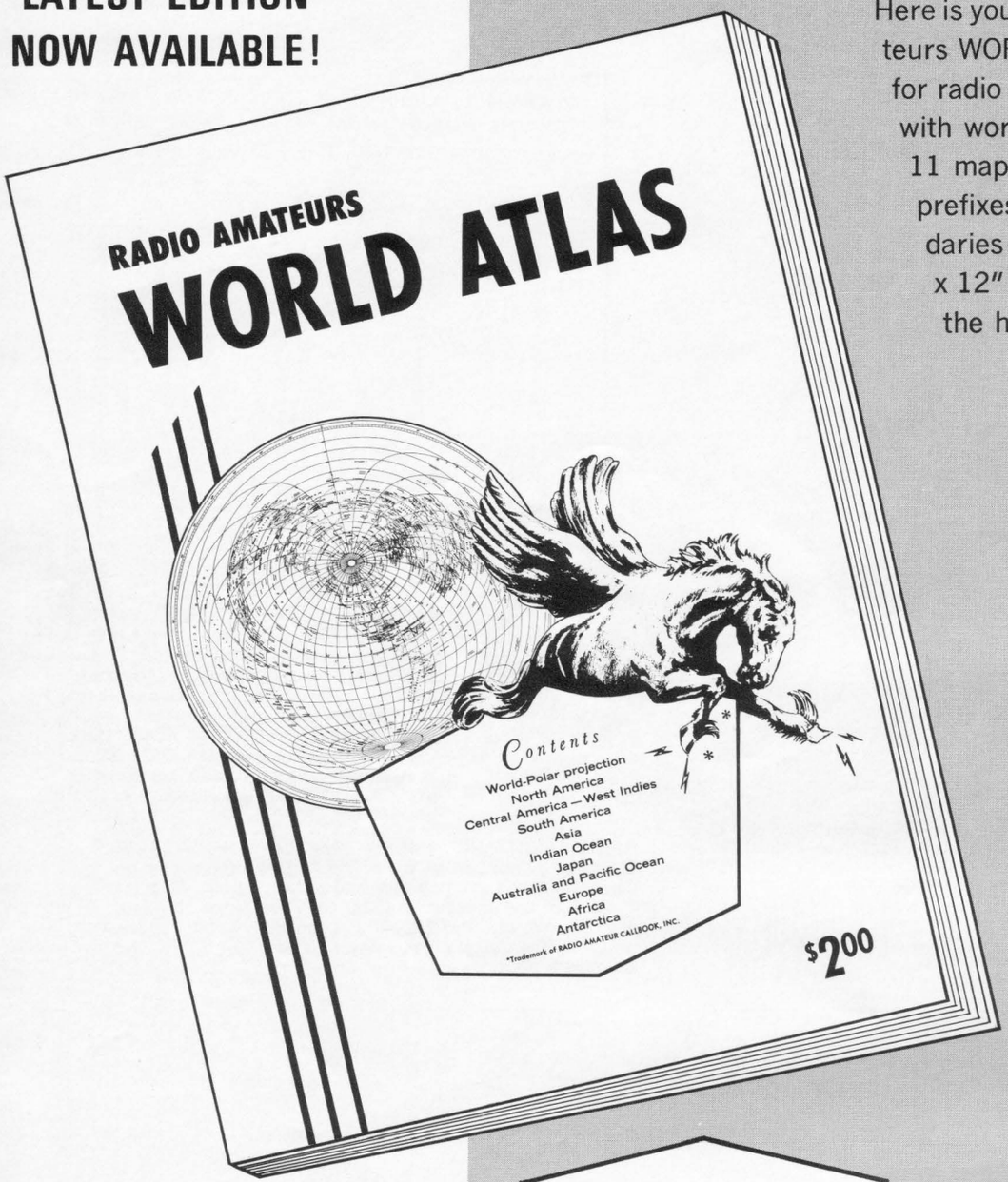
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STANDARD TIME THROUGHOUT THE WORLD

The standard time system is based on the theoretical division of the surface of the globe into 24 zones, each of 15° of longitude. The initial zone is the one which has as its central meridian the Greenwich Meridian and with the meridians 7° 30' E. and 7° 30' W. as its eastern and western limits. Time in this zone is called Greenwich Mean Time, or GMT. Places to the east of Greenwich have faster time than Greenwich, while places to the west have slower time. Not all countries follow the International Time Zone System, but some use the time of some principal city as a standard and others have no standard time.

Reference - "Standard Time Chart of the World" No. 5192, published by U. S. Navy Hydrographic Office, Washington, D.C.

The theoretical system described is applied, in a strict sense, only in oceanic regions. On land or on groups of islands the system is applied with certain local deviations, which, are rendered necessary by frontiers, convenience of an entire island group to maintain same zone time, etc. The time used in each country, whether it is the time of the corresponding zone or modified for reasons given, is an hour fixed by law and, for this reason, is called legal time, or more generally standard time.

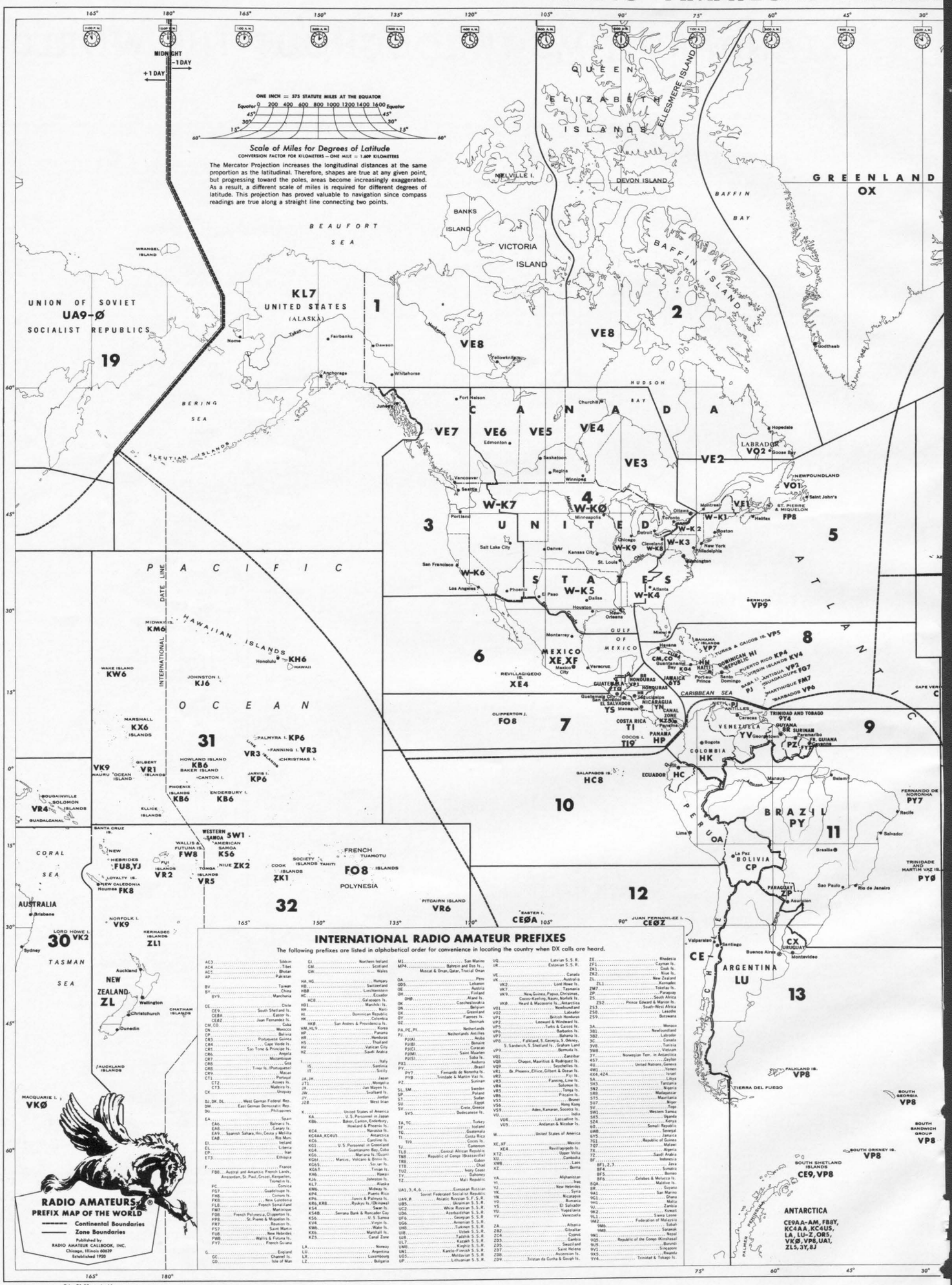
Another deviation from this theoretical system is that certain countries, for economic reasons, modify their legal time for part of the year, especially in summer, by advancing it an hour or another fraction of time. Where such deviations are maintained on a year-round basis, the time kept is considered to be standard time.

Country	Standard or Local Time: Hours fast or slow of GMT	Time at 1200 hrs. GMT
Aden, Kamaran, Socotra Is	+ 3	15 00
Afghanistan	+ 4 1/2	16 30
Alaska, Juneau, Ketchikan, Sitka	− 8	04 00
Yakutat	− 9	03 00
Central part, Kodiak Is	− 10	02 00
West coast, Aleutian Is	− 11	01 00
Albania	+ 1	13 00
Algeria	+ 1	13 00
Amsterdam, St. Paul, Kerguelen Is	+ 5	17 00
Andorra	+ 1	13 00
Angola	+ 1	13 00
Argentina	− 4	08 00
Ascension Is, St. Helena Is	0	12 00
Australia, Western Australia	+ 8	20 00
Northern Territory, South Australia	+ 9 1/2	21 30
New South Wales, Queensland, Victoria, Lord Howe Is, Tasmania Is	+ 10	22 00
Austria	+ 1	13 00
Azores Is	− 2	10 00
Bahama Is	− 5	07 00
Bahrein Is	+ 4	16 00
Baker, Canton, Enderbury, Howland & Phoenix Is	− 11	01 00
Basutoland	+ 2	14 00
Bechuanaland	+ 2	14 00
Belgium	+ 1	13 00
Bermuda Is	− 4	08 00
Bhutan	+ 5 1/2	17 30
Bolivia	− 4	08 00
Bonin, Volcano, Mariana, Saipan, Tinian, Guam Is	+ 10	22 00
Borneo (Indonesia)	+ 7 1/2	19 30
Brazil, Fernando Noronha, Trindade & Martim Vaz Is	− 2	10 00
East of 52°30' W (approx)	− 3	09 00
Amazonas, Matto Grosso	− 4	08 00
Acre Territory	− 5	07 00
British Honduras	− 5 1/2	06 30
British Isles	0	12 00
British Phoenix Is	− 11	01 00
Brunei	+ 8	20 00
Bulgaria	+ 2	14 00
Burma	+ 6 1/2	18 30
Burundi	+ 2	14 00
Cambodia	+ 7	19 00
Cameroun	+ 1	13 00
Canada, Belle Isle, Labrador, Newfoundland	− 3 1/2	08 30
Anticosti Is, Cape Breton Is, Magdalen Is, New Brunswick, Nova Scotia, Prince Edward Is, Quebec (E of 68°W), Sable Is	− 4	08 00
Melville Peninsula (east), Ontario (E of 90°W), Quebec (W of 68°W), Southampton Is	− 5	07 00
Manitoba, Ontario (W of 90°W), Melville Peninsula (west), N.W. Territories (east)	− 6	06 00
Alberta, Saskatchewan, N.W. Territories (middle)	− 7	05 00
British Columbia, N.W. Territories (west)	− 8	04 00
Yukon	− 9	03 00
Arctic Is*		
Canal Zone	− 5	07 00
Canary Is	0	12 00
Cape Verde Is	− 2	10 00
Caroline Is, Western	+ 9	21 00
Eastern	+ 11	23 00
Cayman Is	− 5	07 00
Celebes Is. (Indonesia)	+ 8	20 00
Central African Republic	+ 1	13 00
Ceylon Is	+ 5 1/2	17 30
Chad	+ 1	13 00
Chagos Is	+ 5	17 00
Chatham Is	+ 12 3/4	00 45
Chile, Juan Fernandez Is	− 4	08 00
China, Western part	+ 5	17 00
Mid-western part	+ 6	18 00
Mid-eastern part	+ 7	19 00
Eastern part	+ 8	20 00
Christmas Is	+ 7	19 00
Clipperton Is	− 7	05 00
Cocos-Keeling Is	+ 6 1/2	18 30
Colombia, San Andres & Providencia Is	− 5	07 00
Comora Is	+ 3	15 00
Congo, Republic of (Brazzaville)	+ 1	13 00
Congo, Republic of the (Leopoldville), western part	+ 1	13 00
eastern part	+ 2	14 00
Cook Is	− 10 1/2	01 30
Costa Rica, Cocos Is	− 6	06 00
Crozet Is	+ 3	15 00
Cuba	− 5	07 00
Cyprus Is	+ 2	14 00
Czechoslovakia	+ 1	13 00
Dahomey	+ 1	13 00
Das Is	+ 4	16 00
Denmark	+ 1	13 00
Dominican Republic	− 5	07 00
Easter Is	− 7	05 00
Ecuador, Galapagos Is	− 5	07 00
Egypt	+ 2	14 00
El Salvador	− 6	06 00
Ethiopia	+ 3	15 00
Faeroe Is	0	12 00
Falkland Is	− 4	08 00
Fanning & Line Is	− 10	02 00
Fiji Is	+ 12	24 00
Finland, Aland Is	+ 2	14 00
France, Corsica	+ 1	13 00
French Polynesia	− 10	02 00
Gabon	+ 1	13 00
Gambia	0	12 00
Germany	+ 1	13 00
Ghana	0	12 00
Gibraltar	+ 1	13 00
Gilbert & Ellice Is	+ 12	24 00
Goa	+ 5 1/2	17 30
Greece, Crete, Dodecanese Is	+ 2	14 00
Greenland, western	− 4	08 00
Guantanamo Bay	− 5	07 00
Guatemala	− 6	06 00
Guiana, British	− 3 3/4	08 15
Guiana, French	− 4	08 00
Guinea, Portuguese	− 1	11 00
Guinea, Republic of	0	12 00
Haiti	− 5	07 00
Hawaii	− 10	02 00
Heard Is	+ 5	17 00
Honduras	− 6	06 00
Hong Kong	+ 8	20 00
Hungary	+ 1	13 00
Iceland	− 1	11 00
Ifni	0	12 00
India, Andaman & Nicobar, Laccadive Is	+ 5 1/2	17 30
Iran	+ 3 1/2	15 30
Iraq	+ 3	15 00
Ireland	0	12 00
Israel	+ 2	14 00
Italy, Sardinia, Sicily	+ 1	13 00
Ivory Coast	0	12 00
Jamaica	− 5	07 00
Jan Mayen Is	− 1	11 00
Japan	+ 9	21 00
Jarvis & Palmyra Is	− 10	02 00
Java (Indonesia)	+ 7 1/2	19 30
Johnston Is	− 11	01 00
Jordan	+ 2	14 00
Kenya	+ 3	15 00
Korea	+ 9	21 00
Kuwait	+ 3	15 00
Laos	+ 7	19 00
Lebanon	+ 2	14 00
Liberia	− 3/4	11 15
Libya	+ 2	14 00
Liechtenstein	+ 1	13 00
Luxembourg	+ 1	13 00
Macao	+ 8	20 00
Macquarie Is	+ 11	23 00
Madeira Is	− 1	11 00
Malagasy Republic (Madagascar Is.)	+ 3	15 00
Malawi (Nyasaland)	+ 2	14 00
Malaysia	+ 7 1/2	19 30
Maldive Is	+ 5	17 00
Mali Republic	0	12 00
Malta Is	+ 1	13 00
Manchuria	+ 8	20 00
Manihiki Is	− 11	01 00
Marshall Is, Wake Is	+ 12	24 00
Mauritania	0	12 00
Mauritius & Rodriquez Is	+ 4	16 00
Mexico, east of states of Sonora, Sinaloa & Nayarit	− 6	06 00
Sonora, Sinaloa, Nayarit, Baja California (south of 28°N), Revillagigedo Is	− 7	05 00
Baja California (north of 28°N)	− 8	04 00
Midway Is	− 11	01 00
Molucca Is. (Indonesia)	+ 8 1/2	20 30
Monaco	+ 1	13 00
Mongolia*		
Morocco	0	12 00
Mozambique	+ 2	14 00
Muscat & Oman	+ 4	16 00
Nauru Is, Norfolk Is	+ 11 1/2	23 30
Navassa Is	− 5	07 00
Nepal	+ 5 1/2	17 30
Netherlands	+ 1	13 00
Netherlands Antilles	− 4 1/2	07 30
New Caledonia Is, New Hebrides Is	+ 11	23 00
New Guinea N.E., Papua	+ 10	22 00
New Zealand, Kermadec Is	+ 12	24 00
Nicaragua	− 6	06 00
Niger	0	12 00
Nigeria	+ 1	13 00
Niue & Aitutaki Is	− 11 1/3	00 40
Norway, Svalbard Is	+ 1	13 00
Pakistan, West	+ 5	17 00
East	+ 6	18 00
Panama	− 5	07 00
Paraguay	− 4	08 00
Peru	− 5	07 00
Philippines	+ 8	20 00
Pitcairn Is	− 10	02 00
Poland	+ 1	13 00
Portugal	0	12 00
Prince Edward & Marion Is	+ 3	15 00
Puerto Rico	− 4	08 00
Qatar	+ 4	16 00
Reunion Is	+ 4	16 00
Rhodesia, Southern	+ 2	14 00
Rio Muni	+ 1	13 00
Rumania	+ 2	14 00
Rwanda	+ 2	14 00
Ryukyu Is. (Okinawa)	+ 9	21 00
Sabah, Sarawak (Malaysia)	+ 8	20 00
St. Pierre & Miquelon Is	− 3	09 00
Samoa Is	− 11	01 00
San Marino	+ 1	13 00
Sao Tome & Principe Is	0	12 00
Sarawak	+ 8	20 00
Saudi Arabia**		
Senegal	0	12 00
Serrana Bank & Roncador Cay	− 5	07 00
Seychelles Is	+ 4	16 00
Sierra Leone	0	12 00
Sikkim	+ 5 1/2	17 30
Singapore	+ 7 1/2	19 30
Solomon Is	+ 11	23 00
Somali Republic	+ 3	15 00
Somaliland, French	+ 3	15 00
South Africa	+ 2	14 00
South Georgia Is, South Sandwich Is	− 2	10 00
South Shetland Is, South Orkney Is*		
South-West Africa	+ 2	14 00
Spain, Balearic Is, Ceuta y Melilla	+ 1	13 00
Spanish Sahara (Rio de Oro)	0	12 00
Sudan	+ 2	14 00
Sumatra Is. (Indonesia), west	+ 6 1/2	18 30
east	+ 7	19 00
Surinam (Netherlands Guiana)	− 3 1/2	08 30
Swan Is	− 6	06 00
Swaziland	+ 2	14 00
Sweden	+ 1	13 00
Switzerland	+ 1	13 00
Syria	+ 2	14 00
Taiwan (Formosa)	+ 8	20 00
Tanganyika	+ 3	15 00
Thailand	+ 7	19 00
Tibet	+ 6	18 00
Timor Is	+ 8	20 00
Togo	0	12 00
Tokelau Is	− 11	01 00
Tonga (Friendly) Is	+ 12 1/3	00 20
Tristan de Cunha & Gough Is	0	12 00
Tromelin Is	+ 4	16 00
Trucial Oman	+ 4	16 00
Tunisia	+ 1	13 00
Turkey	+ 2	14 00
Uganda	+ 3	15 00
United States of America, Eastern time	− 5	07 00
Central time	− 6	06 00
Mountain time	− 7	05 00
Pacific time	− 8	04 00
Upper Volta	0	12 00
Uruguay	− 3	09 00
U.S.S.R., Estonia, Latvia, Lithuania, Karelo-Finnish, White Russia, Ukraine, Moldavia, European Russia	+ 3	15 00
Georgia, Armenia, Azerbaidzhan	+ 4	16 00
Kazakh, Uzbek, Turkmen, Tadzhik	+ 5	17 00
Kirghiz, West Siberian region	+ 6	18 00
Approx. 82°30' to 97°30' W.	+ 7	19 00
Buryat, East Siberian region	+ 8	20 00
Approx. 112°30' to 127°30' W.	+ 9	21 00
Kuril Is, Sakhalin Is	+ 10	22 00
Approx. 142°30' to 157°30' W.	+ 11	23 00
Approx. 157°30' to 172°30' W.	+ 12	24 00
Approx. 172°30' W. to coast	+ 13	01 00
Venezuela	− 4	08 00
Vietnam	+ 8	20 00
Wallis & Futuna Is	+ 12	24 00
West Irian (Netherlands New Guinea)	+ 9 1/2	21 30
West Indies, Barbados, Trinidad, Tobago, Guadeloupe, Martinique, Leeward Is, Windward Is	− 4	08 00
Yemen**		
Yugoslavia	+ 1	13 00
Zambia (Northern Rhodesia)	+ 2	14 00
Zanzibar Is	+ 3	15 00

* No definite standard time used.

** "Arabic Time", i.e. daily all watches are set to midnight at sundown.

RADIO AMATEURS PREFIX



INTERNATIONAL RADIO AMATEUR PREFIXES

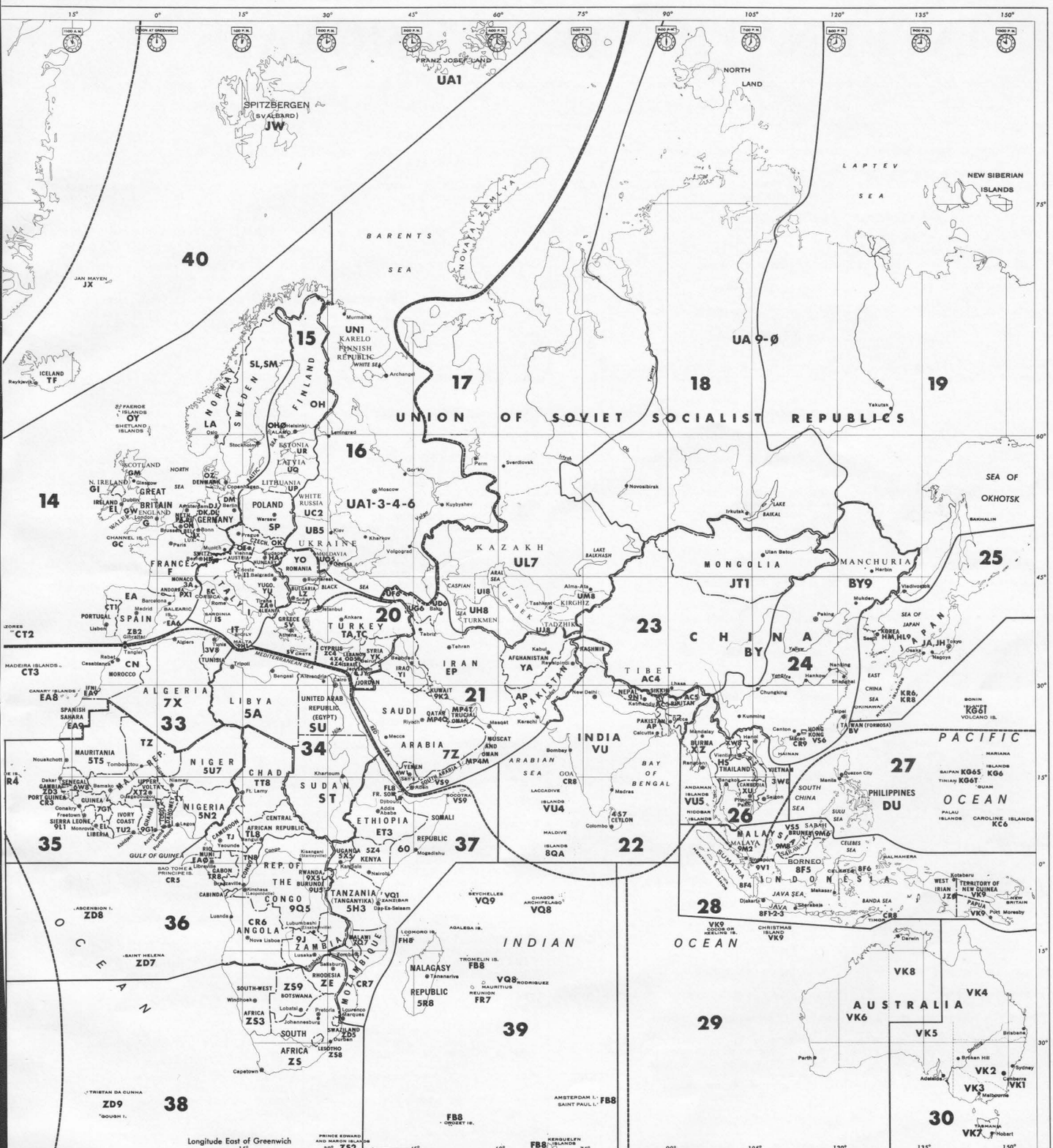
The following prefixes are listed in alphabetical order for convenience in locating the country when DX calls are heard.

AC3	Sikkim	GI	Northern Ireland	MI	San Marino
AC4	Tibet	GM	Scotland	MP4	Bahrein and Das Is., Muscat & Oman, Qatar, Trucial Oman
AC5	Bhutan	GW	Wales		
AP	Pakistan			VE	Canada
		HA, HG	Hungary	VK	Australia
BV	Taiwan	HB	Switzerland	VK2	Lord Howe Is.
BY	China	HBØ	Liechtenstein	VK7	Tasmania
BY9	Manchuria	HC	Ecuador	VK9	New Guinea, Papua, Christmas, Cocos-Keeling, Nauru, Norfolk Is.
		HC8	Galapagos Is.	VK9	Heard & Macquarie Is., Antarctica
CE	Chile	HD1	Manitoba Is.	VO1	Newfoundland
CE9	South Shetland Is.	HH	Haiti	VO2	Labrador
CE8A	Easter Is.	HI	Dominican Republic	VP1	British Honduras
CE8Z	Juan Fernandez Is.	HK	Colombia	VP2	Leeward & Windward Is.
CM, CO	Cuba	HKØ	San Andres & Providencia Is.	VP5	Turks & Caicos Is.
CN	Morocco	HL, HM, HS	Korea	VP6	Barbados Is.
CP	Bolivia	HP	Panama	VP7	Bahama Is.
CR3	Portuguese Guinea	HR	Honduras	VP8	Falkland, S. Georgia, S. Orkney, S. Sandwich, S. Shetland Is., Graham Land
CR4	Cape Verde Is.	HS	Thailand	VP9	Bermuda Is.
CR5	Sao Tome & Principe Is.	HV	Vatican City	VQ1	Zanzibar
CR6	Angola	HZ	Saudi Arabia	VQ8	Chagos, Mauritius & Rodriguez Is.
CR7	Mozambique	I	Italy	VQ9	Seychelles Is.
CR8	Goa	IS	Sardinia	VR1	Br. Phoenix, Ellice, Gilbert & Ocean Is.
CR9	Timor Is. (Portuguese)	IT	Sicily	VR2	Fiji Is.
CT1	Portugal	JA, JH	Japan	VR3	Fanning, Line Is.
CT2	Azores Is.	JT1	Mongolia	VR4	Solomon Is.
CT3	Madeira Is.	JX	Jan Mayen Is.	VR5	Tonga Is.
CX	Uruguay	JW	Svalbard Is.	VR6	Pitcairn Is.
		JY	Jordan	VS5	Brunei
DJ, DK, DL	West German Federal Rep.	JZØ	West Irian	VS6	Hong Kong
DM	East German Democratic Rep.			VS9	Aden, Kamaran, Socotra Is.
DU	Philippines	K	United States of America	VU	India
		KA	U. S. Personnel in Japan	VU4	Laccadive Is.
EA	Spain	KB6	Baker, Canton, Enderbury, Howland & Phoenix Is.	VU5	Andaman & Nicobar Is.
EA6	Balearic Is.	KC4	Navassa Is.	W	United States of America
EA8	Canary Is.	KC4AA, KC4US	Antarctica		
EA9	Spanish Sahara, Rio, Ceuta y Melilla	KC6	Caroline Is.	XE, XF	Mexico
EA9	Rio Muni	KG1	U. S. Personnel in Greenland	XE4	Revillagigedo Is.
EI	Ireland	KG4	Guantanamo Bay, Cuba	XT2	Upper Volta
EL	Liberia	KG6	Marcus, Volcano & Bonin Is.	XU	Cambodia
EP	Iran	KG6A	Marcus, Volcano & Bonin Is.	XW6	Laos
ET3	Ethiopia	KG6S	San Jan Is.	XZ	Burma
		KG6T	Tinian Is.		
F	France	KH6	Hawaii	YA	Afghanistan
FB8	Austral and Antarctic French Lands, Amsterdam, St. Paul, Crozet, Kerguelen, Tromelin Is.	KJ6	Johnston Is.	YI	Iraq
		KL7	Alaska	YJ	New Hebrides
FC	Corsica	KM6	Midway Is.	YK	Syria
FG7	Guadeloupe Is.	KP4	Puerto Rico	YN	Nicaragua
FH8	Comoro Is.	KP6	Jarvis & Palmyra Is.	YO	Rumania
FK8	New Caledonia	KR6, KR8	Ryukyu Is. (Okinawa)	YS	El Salvador
FL8	French Somaliland	KS4	Swan Is.	YU	Yugoslavia
FM7	Martinique	KS4B	Serrana Bank & Roncador Cay	YV	Venezuela
FO8	French Polynesia, Clipperton Is.	KS6	U. S. Samoa		
FP8	St. Pierre & Miquelon Is.	KV4	Virgin Is.	ZA	Albania
FR7	Reunion Is.	KW6	Wake Is.	ZB2	Gibraltar
FS7	Saint Martin	KX6	Marshall Is.	ZC4	Cyprus
FU8	New Hebrides	KZ5	Canal Zone	ZD3	Gambia
FW8	Wallis & Futuna Is.			ZD5	Swaziland
FY7	French Guiana	LA	Norway	ZD7	Saint Helena
		LU	Argentina	ZD8	Ascension Is.
G	England	LX	Luxembourg	ZD9	Tristan da Cunha & Gough Is.
GC	Channel Is.	LZ	Bulgaria		
GD	Isle of Man				

UQ	Latvian S. S. R.	ZE	Rhodesia
UR	Estonian S. S. R.	ZF1	Cayman Is.
		ZK1	Cook Is.
VE	Canada	ZK2	Niue Is.
VK	Australia	ZL	New Zealand
VK2	Lord Howe Is.	ZL1	Kermadec
VK7	Tasmania	ZM7	Tokelau Is.
VK9	New Guinea, Papua, Christmas, Cocos-Keeling, Nauru, Norfolk Is.	ZP	Paraguay
VK9	Heard & Macquarie Is., Antarctica	ZS	South Africa
		ZS2	Prince Edward & Marion Is.
VO1	Newfoundland	ZS3	South-West Africa
VO2	Labrador	ZS8	Lesotho
VP1	British Honduras	ZS9	Botswana
VP2	Leeward & Windward Is.		
VP5	Turks & Caicos Is.	3A	Monaco
VP6	Barbados Is.	3B1	Newfoundland
VP7	Bahama Is.	3B2	Labrador
VP8	Falkland, S. Georgia, S. Orkney, S. Sandwich, S. Shetland Is., Graham Land	3C	Canada
VP9	Bermuda Is.	3V8	Tunisia
VQ1	Zanzibar	3W8	Vietnam
VQ8	Chagos, Mauritius & Rodriguez Is.	3Y	Norwegian Terr. in Antarctica
VQ9	Seychelles Is.	4S7	Ceylon
VR1	Br. Phoenix, Ellice, Gilbert & Ocean Is.	4U	United Nations, Geneva
VR2	Fiji Is.	4W1	Yemen
VR3	Fanning, Line Is.	4X4, 4Z4	Israel
VR4	Solomon Is.	5A	Libya
VR5	Tonga Is.	5H3	Tanzania
VR6	Pitcairn Is.	5N2	Nigeria
VS5	Brunei	5R8	Madagascar
VS6	Hong Kong	5T5	Mauritania
VS9	Aden, Kamaran, Socotra Is.	5U7	Niger
VU	India	5V	Togo
VU4	Laccadive Is.	5W1	Western Samoa
VU5	Andaman & Nicobar Is.	5X5	Uganda
		5Z4	Kenya
W	United States of America	6O	Somali Republic
		6W8	Senegal
XE, XF	Mexico	6Y5	Jamaica
XE4	Revillagigedo Is.	7G1	Republic of Guinea
XT2	Upper Volta	7Q7	Malawi
XU	Cambodia	7X	Algeria
XW6	Laos	7Z	Saudi Arabia
XZ	Burma	8F	Indonesia
		8F1, 2, 3	Java
YA	Afghanistan	8F4	Sumatra
YI	Iraq	8F5	Borneo
YJ	New Hebrides	8F6	Celebes & Molucca Is.
YK	Syria	8QA	Maldive Is.
YN	Nicaragua	8R	Guyana
YO	Rumania	9A1	San Marino
YS	El Salvador	9G1	Ghana
YU	Yugoslavia	9H1	Malta
YV	Venezuela	9J	Zambia
		9K2	Kuwait
ZA	Albania	9L1	Sierra Leone
ZB2	Gibraltar	9M2	Federation of Malaysia
ZC4	Cyprus	9M6	Sabah
ZD3	Gambia	9M8	Sarawak
ZD5	Swaziland	9N1	Nepal
ZD7	Saint Helena	9U5	Republic of the Congo (Kinshasa)
ZD8	Ascension Is.	9U5	Burundi
ZD9	Tristan da Cunha & Gough Is.	9V1	Singapore
		9X5	Rwanda
		9Y4	Trinidad & Tobago Is.
ZE	Rhodesia		
ZF1	Cayman Is.		
ZK1	Cook Is.		
ZK2	Niue Is.		
ZL	New Zealand		
ZL1	Kermadec		
ZM7	Tokelau Is.		
ZP	Paraguay		
ZS	South Africa		
ZS2	Prince Edward & Marion Is.		
ZS3	South-West Africa		
ZS8	Lesotho		
ZS9	Botswana		

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MAP OF THE WORLD



PREFIXES-BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

Aden (South Arabia)	(A-21)	VS9	Cambodia	(A-26)	XU	Denmark	(E-14)	OZ	Guyana	(SA-9)	8R
Afghanistan	(A-21)	YA	Cameroon	(AF-36)	TJ	Dodecanese Is.	(E-20)	SV5	Haiti	(NA-8)	HH
Aland Is.	(E-15)	OH0	Canada	(NA-1 to 5)	VE, VO	Dominican Republic	(NA-8)	HI	Hawaii	(O-39)	KH6
Alaska	(NA-1)	KL7	Canal Zone	(NA-7)	KZ5	Easter Is.	(SA-12)	CE0A	Honduras	(NA-7)	HR
Albania	(E-15)	ZA	Canary Is.	(AF-33)	EA8	Ecuador	(SA-10)	HC	Hong Kong	(A-24)	VS6
Algeria	(AF-33)	7X	Canton Is.	(O-31)	KB6	Egypt	(AF-34)	SU	Howland Is.	(O-31)	KB6
Amsterdam & St. Paul Is.	(AF-39)	FB8	Cape Verde Is.	(AF-35)	CR4	El Salvador	(NA-7)	YS	Hungary	(E-15)	HA, HG
Andaman & Nicobar Is.	(A-26)	VU5	Caroline Is.	(O-27)	KC6	Enderbury Is.	(O-31)	KB6	Iceland	(E-40)	TF
Andorra	(E-14)	PX1	Cayman Is.	(NA-8)	ZF1	England	(E-14)	G	Iles Crozet	(AF-33)	EA9
Angola	(AF-36)	CR6	Celebes & Moluccas Is.	(O-28)	BF6	Ethiopia	(AF-37)	ET3	India	(A-22)	VU
Antarctica		CE9AA-AM, FB8Y, KC4AA, KC4US, LA, LU-Z, OR5, VK0, VP8, (IA), ZL5, 3Y, 8J	Central African Republic	(AF-36)	TL8	Iles Kerguelen	(AF-39)	VQ9	Indonesia	(O-28)	YB
			Ceuta y Melilla, Spanish	(A-33)	EA9	Iles Saint Paul & Amsterdam	(AF-39)	FB8	Iran	(A-21)	EP
			Ceylon	(A-22)	4S7	Faeroes Is.	(E-14)	OY	Iraq	(A-21)	YI
Argentina	(SA-13)	LU	Chad	(AF-36)	TT8	Falkland Is.	(SA-13)	VP8	Ireland	(E-14)	EI
Ascension Is.	(AF-36)	ZD8	Chagos Is.	(AF-39)	VQ8	Fanning Is.	(O-31)	VR3	Isle of Man	(E-14)	GD
Austral & French Antarctic	(A-39)	FB8	Channel Is.	(E-14)	GC	Fernando de Noronha	(SA-11)	PY7	Israel	(A-20)	4X4, 4Z4
Australia	(O-29 & 30)	VK	Chatham Is.	(O-32)	ZL	Fiji Is.	(O-32)	VR2	Italy	(E-15)	I
Austria	(E-15)	OE	Chile	(SA-12)	CE	Finland	(E-15)	OH	Ivory Coast	(AF-35)	TU2
Azores Is.	(E-14)	CT2	China	(A-23 & 24)	BY	France	(E-14)	F			
			Christmas Is.	(O-29)	VK9X	French Polynesia	(O-32)	FO8	Jamaica	(NA-8)	6Y5
Bahama Is.	(NA-8)	VP7	Cilpperton Is.	(NA-7)	FO8	Gabon	(AF-36)	TR8	Jan Mayen Is.	(E-40)	JX
Bahrein Is.	(A-21)	MP4B	Cocos Is.	(NA-7)	TI9	Galapagos Is.	(SA-10)	HC8	Japan	(A-25)	JA, JH
Baker Is.	(O-31)	KB6	Cocos-Keeling Is.	(O-29)	VK9	Gambia	(AF-35)	ZD3	Jarvis Is.	(O-31)	KP6
Balearic Is.	(E-14)	EA6	Colombia	(SA-9)	HK	German Federal Rep. West	(E-14)	DJ, DK, DL	Java	(O-28)	BF1, 2, 3
Barbados Is.	(NA-8)	VP6	Comoro Is.	(AF-39)	FH8	German Dem. Rep., East	(E-14)	DM	Johnston Is.	(O-31)	KJ6
Belgium	(E-14)	ON	Congo, Republic of	(AF-36)	TN0	Ghana	(AF-35)	9G1	Jordan	(A-20)	JY
Bermuda Is.	(NA-5)	VP9	Congo, Republic of the	(AF-36)	9Q5	Gibraltar	(E-14)	ZB2	Juan Fernandez Is.	(SA-12)	CE0Z
Bhutan	(A-22)	AC5	Cook Is.	(O-32)	ZK1	Gilbert Is.	(O-31)	VR1			
Bolivia	(SA-10)	CP	Corsica	(E-15)	FC	Goa	(A-22)	CR8	Kamaran Is.	(A-21)	VS9K
Bonaire	(NA-7)	PJ	Costa Rica	(NA-7)	TI	Graham Land	(SA-13)	VP8	Kenya	(AF-37)	5Z4
Botswana	(AF-38)	Z9	Crete	(E-20)	SV	Greece	(E-20)	SV	Kerguelen Is.	(AF-39)	FB8
Brazil	(SA-11)	PY	Crozet Is.	(AF-39)	FB8	Greenland	(NA-40)	OX	Kermadec Is.	(O-32)	ZL1
British Honduras	(NA-7)	VP1	Cuba	(NA-8)	CM, CO	Grenada	(NA-8)	J3	Korea	(A-25)	HM, HL9
British Phoenix Is.	(O-31)	VR1	Cyprus	(A-20)	ZC4	Guadeloupe Is.	(NA-8)	FG7	Kuwait	(A-21)	9K2
Brunei	(O-28)	VS1	Czechoslovakia	(E-15)	OK	Guantanamo Bay	(NA-8)	KG4			
Bulgaria	(E-20)	LZ				Guatemala	(NA-7)	TG	Laccadive Is.	(A-22)	VU4
Burma	(A-26)	XZ	Dahomey	(AF-35)	TY	Guiana, French	(SA-9)	FY7	Lebanon	(A-20)	OD5
Burundi	(AF-36)	9U5	Das Is.	(A-21)	MP4D	Guinea, Portuguese	(AF-35)	CR3	Leeward Is. (West Indies)	(NA-8)	VP2
						Guinea, Republic of	(AF-35)	7G1	Lesotho	(AF-38)	ZS8
									Liberia	(AF-34)	EL
									Libya	(AF-34)	5A
									Liechtenstein	(E-14)	HB0
									Line Is.	(O-31)	VR3

Little America	(SA-13)	KC4	Panama	(NA-7)	HP	Somaliland, French	(AF-37)	FL1	Trinidad & Martim Vaz Is.	(SA-11)	PY0
Lord Howe Is.	(O-30)	VK2	Papua Territory	(O-28)	VK9	South Africa	(AF-38)	ZS	Trinidad & Tobago Is.	(SA-9)	YV4
Luxembourg	(E-14)	LX	Paraguay	(SA-11)	ZP	South Georgia Is.	(SA-13)	VP0	Tristan da Cunha & Gough	(AF-38)	ZD9
			Peru	(SA-10)	OA	South Orkney Is.	(SA-13)	VP0	Tromelin Is.	(AF-39)	FB8
Macao	(A-24)	CR9	Philippines	(O-27)	DU	South Sandwich Is.	(SA-13)	VP0	Tropical Oman	(A-21)	MP4T
Maccarone Is.	(O-30)	VK9	Pitcairn Is.	(O-32)	VR6	South Shetland Is.	(SA-13)	CE9, VP0	Tunisia	(AF-33)	3V8
Madeira Is.	(AF-33)	CT3	Poland	(E-15)	SP	South-West Africa	(AF-38)	ZS3	Turkey	(A-20)	TA, TC
Madagascar	(AF-39)	5R8	Portugal	(E-14)	CT1	Soviet Union			Turks & Caicos Is.	(NA-8)	VP5
Malawi	(AF-37)	7Q7	Prince Edward & Marion Is.	(AF-38)	ZS2	European Russian Soviet Federated Socialist Republic	(E-16), UA1, 2, 4, 6		Uganda	(AF-37)	5X5
Malaysia, Federation of	(A-28)	9M2	Puerto Rico	(NA-8)	KP4	Asiatic Russian S.F.S.R.	(A-19)	UA9, 0	United Arab Republic (Egypt)	(E-14)	SU
Maldive Is.	(A-22)	8Q6				Ukrainian S. S. R.	(E-16)	UB5	United States of America	(NA-3, 4, 5)	W, K
Mali Republic	(AF-35)	TZ	Qatar	(A-21)	MP4Q	White Russian S. S. R.	(E-16)	UC2	Upper Volta	(AF-35)	XT2
Malta	(E-15)	9H1				Azerbaijan S. S. R.	(A-21)	UD6	Uruguay	(SA-13)	CX
Manchuria	(A-24)	BY9				Georgian S. S. R.	(A-21)	UF6			
Manihiki Is.	(O-32)	ZK1	Reunion Is.	(AF-39)	FR7	Armenian S. S. R.	(A-21)	UG6	Vatican City	(E-15)	HV
Marcus Is.	(A-27)	KG6I	Revillagigedo Is.	(NA-6)	XE4	Turkmen S. S. R.	(A-21)	UH8	Venezuela	(SA-9)	YV
Mariana Is.	(O-27)	KG6	Rhodesia	(AF-38)	ZE	Uzbek S. S. R.	(A-21)	UI8	Vietnam	(A-26)	XW6
Marshall Is.	(O-31)	KX6	Rio Muni	(AF-36)	EA0	Tadzhik S. S. R.	(A-21)	UJ8	Virgin Is.	(NA-8)	KV4
Martinique	(NA-8)	FM7	Rodriguez Is.	(AF-39)	VQ9	Kazakh S. S. R.	(A-21)	UL7	Volcano & Bonin Is.	(A-27)	KG6I
Mauritania	(AF-35)	5T5	Rumania	(E-20)	YO	Kirghiz S. S. R.	(A-21)	UM8			
Mauritius Is.	(AF-39)	VQ9	Rwanda	(AF-36)	9X5	Karelo-Finnish S. S. R.	(E-16)	UN1	Wake Is.	(O-31)	KW6
Mexico	(NA-6)	XE, XF	Ryukyu Is.	(A-25)	KR6, KR8	Moldavian S. S. R.	(E-16)	UO5	Wallis	(O-32)	FW5
Midway Is.	(O-31)	KM6				Lithuanian S. S. R.	(E-15)	UP	Wallis & Futuna Is.	(O-32)	FW5
Monaco	(E-14)	3A	Saba Is.	(NA-8)	PJ5	Latvian S. S. R.	(E-15)	UQ	West Irian	(O-28)	JZ0
Mongolia	(A-25)	JT1	Sahah	(O-28)	VS6	Estonian S. S. R.	(E-15)	UR	Windward Is. (West Indies)	(NA-8)	VP2
Morocco	(AF-33)	CN	Saint Helena Is.	(AF-36)	ZD7	Spain	(E-14)	EA			
Mozambique	(AF-37)	CR7	Saint Maarten Is.	(NA-8)	PJ2M	Spanish Sahara/Rio de Oro	(AF-33)	EA9	Yemen	(A-21)	4W1
Muscat & Oman	(A-21)	MP4M	Saint Martin Is.	(NA-8)	FS7	Sudan	(AF-34)	ST	Yugoslavia	(E-15)	YU
			Saint Pierre & Miquelon Is.	(NA-5)	FP0	Sumatra	(O-28)	PF4			
Nauru Is.	(O-31)	VK9	Samoa (U.S.)	(O-32)	KS6	Suriname	(SA-9)	PZ	Zambia	(AF-36)	9J
Navassa Is.	(NA-8)	KC4	Samoa, Western	(O-32)	5W1	Svalbard Is.	(E-40)	JW	Zanzibar	(AF-37)	VQ1
Netherlands	(E-14)	PA, PE, PI	San Andres & Providencia Is.	(NA-7)	HK0	Swan Is.	(NA-7)	KS4			
Netherlands Antilles	(SA-9)	PJ	San Marino	(E-15)	M1, 9A1	Swaziland	(AF-38)	ZD5			
New Caledonia	(O-32)	FK8	San Tome & Principe Is.	(A-36)	CR5	Sweden	(E-14)	SL, SM			
Newfoundland	(NA-5)	VO1, 3&I	Sarawak	(O-28)	9M6	Switzerland	(E-14)	HB			
New Guinea, N. E.	(O-28)	VK9	Sardinia	(E-15)	IS	Syria	(A-20)	YK			
New Hebrides	(O-32)	FU8, YJ	Saudi Arabia	(A-21)	HZ, 7Z						
New Zealand	(O-32)	ZL	Scotland	(E-14)	GM						
Nicaragua	(NA-7)	YN	Senegal	(AF-35)	6W6	Taiwan	(A-24)	BV			
Niger	(AF-35)	5U7	Seychelles Is.	(AF-39)	VQ9	Tanzania	(AF-37)	5H3			
Nigeria	(AF-35)	5N2	Sicily	(E-15)	IT	Tasmania	(O-30)	VK7			
Niue Is.	(O-32)	ZK2	Sierra Leone	(AF-35)	9L1	Thailand	(A-26)	HS			
Norfolk Is.	(O-32)	VK9	Sikkim	(A-22)	AC5	Tibet	(A-23)	AC4			
Northern Ireland	(E-14)	GI	Singapore	(A-28)	9V1	Timor Is. (Portuguese)	(O-28)	CR8			
Norway	(E-14)	LA	Socotra Is.	(AF-37)	VS9	Tonga (Friendly) Is.	(O-27)	KG6I			
			Solomon Is.	(O-28)	VR6	Togo	(AF-35)	5V			
			Somali Republic	(AF-37)	6O	Tokelau Is.	(O-32)	ZM7			
						Tonga (Friendly) Is.	(O-32)	VR5			

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This map available in 4 colors, size 40" x 28". See page 19.

INTERNATIONAL "Q" SIGNALS

Abbreviation	Question	Answer or Advice
QRA	What is the name of your station?	The name of my stations is . . .
QRB	How far approximately are you from my station?	The approximate distance between our stations is . . . nautical miles (or kilometres)
QRD	Where are you bound and where are you from?	I am bound for . . . from . . .
QRG	Will you tell me my exact frequency or that of . . .)?	Your exact frequency (or that of . . . is . . . kc/s (or Mc/s).
QRH	Does my frequency vary?	Your frequency varies.
QRI	How is the tone of my transmission?	The tone of your transmission is . . . (1. Good; 2. Variable; 3. Bad).
QRK	What is the readability of my signals (or those of . . .)?	The readability of your signals (or those of . . .) is . . . (1. Unreadable; 2. Readable now and then; 3. Readable, but with difficulty; 4. Readable; 5. Perfectly readable).
QRL	Are you busy?	I am busy (or I am busy with . . .). Please do not interfere.
QRM	Are you being interferred with?	I am being interferred with.
QRN	Are you troubled by static?	I am troubled by static.
QRO	Shall I increase power?	Increase power.
QRP	Shall I decrease power?	Decrease power.
QRQ	Shall I send faster?	Send faster (. . . words per minute).
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at . . . words per minute.
QRS	Shall I send more slowly?	Send more slowly (. . . words per minute).
QRT	Shall I stop sending?	Stop sending.
QRU	Have you anything for me?	I have nothing for you.
QRV	Are you ready?	I am ready.
QRW	Shall I inform . . . that you are calling him on . . . kc/s (or Mc/s).	Please inform . . . that I am calling him on . . . kc/s (or Mc/s).
QRX	When will you call me again?	I will call you again at . . . hours [on . . . kc/s (or Mc/s)].
QRY	What is my turn?	Your turn is Number . . . (*Relates to communication.*)
QRZ	Who is calling me?	You are being called by . . . [on . . . kc/s or Mc/s)].
QSA	What is the strength of my signals (or those of . . .)?	The strength of your signals (or those of . . .) is . . . (1. Scarcely perceptible; 2. Weak; 3. Fairly good; 4. Good; 5. Very good).
QSB	Are my signals fading?	Your signals are fading.
QSD	Is my keying defective?	Your keying is defective.
QSG	Shall I send . . . telegrams at a time?	Send . . . telegrams at a time.
QSJ	What is the charge to be collected per word to . . . including your internal telegraph charge?	The charge to be collected per word to . . . including my internal telegraph charge is . . . francs.
QSK	Can you hear me between your signals?	I can hear you between my signals.
QSL	Can you acknowledge receipt?	I am acknowledging receipt.
QSM	Shall I repeat the last telegram which I sent you, or some previous telegram?	Repeat the last telegram which you sent me [or *telegram(s) number(s)* . . .].
QSN	Did you hear me [or . . . (call sign)] on . . . kc/s (or Mc/s)?	I did hear you [or . . . (call sign) on . . . kc/s (or Mc/s).
QSO	Can you communicate with . . . direct or by relay?	I can communicate with . . . direct (or by relay through . . .).
QSP	Will you relay to . . . free of charge?	I will relay to . . . free of charge.
QSQ	Have you a doctor on board [or is . . . (name of person) on board]?	I have a doctor on board [or . . . name of person) is on board].
QSU	Shall I send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	Send or reply on this frequency [or on . . . kc/s (or Mc/s] (with emissions of closs . . .).
QSV	Shall I send a series of V's on this frequency [or . . . kc/s (or Mc/s)]?	Send a series of V's on this frequency [or . . . kc/s (or Mc/s)].
QSW	Will you send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class)?	I am going to send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).
QSX	Will you listen to . . . [*call sign(s)*] on . . . kc/s (or Mc/s)	I am listening to . . . [*call sign(s)*] on . . . kc/s (or Mc/s).
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency [or on . . . kc/s (or Mc/s)].
QSZ	Shall I send each word or group more than once?	Send each word or group twice (or . . . times).
QTA	Shall I cancel telegram number . . . as if it had not been sent?	Cancel telegram number . . . as if it had not been sent.
QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QTC	How many telegrams have you to send?	I have . . . telegrams for you (or for . . .).
QTE	What is my TRUE bearing from you? or What is my TRUE bearing from . . . (*call sign)*? or What is the TRUE bearing of . . . (*call sign)* from . . . (*call sign)*?	Your TRUE bearing from me is . . . degrees (at . . . hours) or Your TRUE bearing from . . . (*call sign)* was . . . degrees (at hours) or The TRUE bearing of . . . (*call sign)* from . . . (*call sign)* was . . . degrees at . . . hours).
QTG	Will you send two dashes of ten seconds each followed by your call sign (repeated . . . times) [on . . . kc/s (or Mc/s)]? or Will you request . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s)?	I am going to send two dashes of ten seconds each followed by my call sign (repeated . . . times) [on . . . kc/s (or Mc/)] or I have requested . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s).
QTH	What is your position in latitude and longitude (*or according to any other indication)*?	My position is . . . latitude . . . longitude (*or according to any other indication).*
QTI	What is your TRUE track?	My TRUE track is . . . degrees.
QTJ	What is your speed?	My speed is . . . knots (or kilometres per hour).
QTL	What is your TRUE heading?	My TRUE heading is . . . degrees.
QTN	At what time did you depart from . . . (*place)*?	I departed from . . . (*place)* at . . . hours.
QTO	Have you left dock (or port)? or Are you airborne?	I have left dock (or port) or I am airborne.
QTP	Are you going to enter dock (or port)? or Are you going to alight (or land)?	I am going to enter dock (or port) or I am going to alight (or land).
QTQ	Can you communicate with my station by means of the International Code of Signals?	I am going to communicate with your station by means of the International Code of Signals.
QTR	What is the correct time?	The correct time is . . . hours.
QTS	Will you send your call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s] so that your frequency may be measured?	I will send my call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that my frequency may be measured.
QTU	What are the hours during which your station is open?	My station is open from . . . to . . . hours.
QTV	Shall I stand guard for you on the frequency of . . . kc/s (*or Mc/s)* (from . . . to . . . hours)?	Stand guard for me on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours).
QTX	Will you keep your station open for further communication with me until further notice (or until . . . hours)?	I will keep my station open for further communication with you until further notice (or until . . . hours).
QUA	Have you news of . . . (*call sign)*?	Here is news of . . . (*call sign).*
QUB	Can you give me, in the following order, information concerning: visibility, height of clouds, direction and velocity of ground wind at . . . (*place of observation)*?	Here is the information requested . . .
QUC	What is the number (*or other indication)* of the last message you received from me [or from (*call sign*]?	The number (*or other indication)* of the last message I received from you [or from . . . (*call sign)*] is . . .
QUD	Have you received the urgency signal sent by . . . (*call sign of mobile station)*?	I have received the urgency signal sent by . . . (*call sign of mobile station)* at . . . hours).
QUF	Have you received the distress signal sent by . . . (*call sign of mobile station)*?	I have received the distress signal sent by . . . (*call sign of mobile station)* at . . . hours.
QUG	Will you be forced to alight (or land)?	I am forced to alight (or land immediately. or I shall be forced to alight (or land) at . . . (*position or place).*
QUH	Will you give me the present barometric pressure at sea level?	The present barometric pressure at sea level is . . . (*units).*

CENSUS OF AMATEUR RADIO LICENSES* in the U. S. A.

by classes, within states and call areas

Call Area	State	Novice	Technician	Conditional	General	Advanced	Extra	Club	Military	State totals	YL's (Included in state totals)
#1	Conn.	221	741	801	1,827	824	202	77	8	4,701	141
	Maine	53	115	592	388	276	72	15	7	1,518	60
	Mass.	433	3,086	626	4,324	1,832	420	114	23	10,858	405
	N.H.	73	397	204	593	253	55	23	3	1,601	77
	R.I.	39	473	114	601	223	51	23	5	1,529	57
	Vermont	38	74	236	169	102	18	10	3	650	36
		857	4,886	2,573	7,902	3,510	818	262	49	20,857	776
#2	N.J.	645	3,415	410	5,324	2,356	538	156	15	12,859	313
	N.Y.	1,395	6,027	887	9,982	3,973	893	339	46	23,542	660
		2,040	9,442	1,297	15,306	6,329	1,431	495	61	36,401	973
#3	Del.	48	104	42	296	101	24	8	2	625	15
	Md.	316	879	316	2,271	1,108	282	65	28	5,265	129
	Pa.	934	3,795	877	6,290	2,321	526	208	32	14,983	427
	D.C.	30	89	29	261	143	36	22	6	616	12
		1,328	4,867	1,264	9,118	3,673	868	303	68	21,489	583
#4	Ala.	254	654	790	1,284	480	103	22	16	3,603	127
	Fla.	432	1,684	1,900	3,803	2,173	397	100	25	10,514	385
	Ga.	202	565	869	1,436	633	133	47	17	3,902	102
	Ky.	159	439	520	796	394	75	28	9	2,420	69
	N.C.	232	599	997	1,446	662	120	45	17	4,118	140
	S.C.	89	149	985	471	235	50	16	16	2,011	53
	Tenn.	288	1,066	642	1,456	690	137	41	5	4,325	126
	Va.	274	821	872	2,225	1,101	276	57	40	5,666	121
		1,930	5,977	7,575	12,917	6,368	1,291	356	145	36,559	1,123
#5	Ark.	166	272	416	523	294	54	25	9	1,759	78
	La.	214	377	720	1,134	522	100	36	17	3,120	79
	Miss.	82	136	498	513	242	36	7	4	1,518	34
	N.M.	98	144	601	376	328	76	15	15	1,653	72
	Okla.	218	652	519	1,075	622	103	35	40	3,264	126
	Texas	814	2,478	3,193	5,118	2,624	480	146	63	14,916	634
		1,592	4,059	5,947	8,739	4,632	849	264	148	26,230	1,023
#6	Calif.	2,231	8,212	3,842	15,212	8,263	1,449	482	125	39,816	1,321
#7	Ariz.	258	631	606	1,083	633	110	35	37	3,393	150
	Idaho	84	41	481	170	176	29	10	2	993	48
	Mont.	101	49	636	149	150	48	15	7	1,155	62
	Nev.	33	89	430	165	136	21	10	9	893	47
	Oreg.	369	552	864	1,534	794	127	51	16	4,307	206
	Utah	191	237	182	495	223	40	14	11	1,393	42
	Wash.	510	1,023	1,316	2,639	1,266	235	69	22	7,080	336
	Wyo.	54	33	238	101	61	16	12	3	518	24
		1,600	2,655	4,753	6,336	3,439	626	216	107	19,732	915
#8	Mich.	812	2,796	1,066	4,195	1,618	249	128	19	10,883	360
	Ohio	1,034	5,321	669	5,956	2,341	361	203	20	15,905	547
	W. Va.	158	390	193	719	221	55	17	5	1,758	44
		2,004	8,507	1,928	10,870	4,180	665	348	44	28,546	951
#9	Ill.	1,076	3,338	1,804	5,886	2,415	392	216	22	15,149	485
	Ind.	462	1,979	563	2,391	939	166	114	7	6,621	256
	Wisc.	330	779	927	1,635	818	137	73	15	4,714	112
		1,868	6,096	3,294	9,912	4,172	695	403	44	26,484	853
#10	Colo.	257	431	666	1,222	642	124	43	15	3,400	128
	Iowa	363	565	597	1,672	737	120	57	10	4,121	138
	Kas.	303	360	972	1,118	539	127	38	27	3,484	150
	Minn.	395	517	873	1,774	815	176	60	11	4,621	126
	Mo.	422	1,038	896	2,060	979	189	73	10	5,667	205
	Nebr.	173	290	492	724	361	50	32	6	2,128	86
	N.D.	36	11	440	64	96	21	8	7	683	28
	S.D.	68	45	259	236	138	21	12	3	782	40
		2,017	3,257	5,195	8,870	4,307	828	323	89	24,886	901
Grand total, 48 states and D.C. only		17,467	57,958	37,668	105,182	48,873	9,520	3,452	880	281,000	9,419

* From the Fall 1969 Radio Amateur Callbook Magazine.

NEW YORK, N.Y.

The table below shows the great circle bearing in degrees from the point indicated above to countries throughout the world having licensed radio amateurs. Where cities are shown the bearing to the nearest degree is given. These bearings were compiled from information supplied by the U. S. Coast and Geodetic Survey.

PREFIX	COUNTRY	BEARING
A2C	BOTSWANA, MAFEKING	103
AC3	SIKKIM	17
AC4	TIBET, LHASA	14
AC5	BHUTAN	14
AP	PAKISTAN, KARACHI	36
BV	TAIWAN, TAIPEI	345
BY	CHINA, CHUNGKING	359
	PEKING	352
	SHANGHAI	346
CE	CHILE, SANTIAGO	177
CEØA	EASTER IS.	212
CEØZ	JUAN FERNANDEZ IS.	184
CM,CO	CUBA, HAVANA	204
CN	MOROCCO, CASABLANCA	75
CP	BOLIVIA, LA PAZ	173
CR3	PORTUGUESE GUINEA	101
CR4	CAPE VERDE IS.	105
CR6	ANGOLA, NOVA LISBOA	100
CR7	MOZAMBIQUE, LOURENCO MARQUES	101
	MOZAMBIQUE	85
CR8	GOA	35
CR8	TIMOR IS.	327
CR9	MACAO	352
CT1	PORTUGAL, LISBON	70
CT2	AZORES IS.	78
CT3	MADEIRA IS.	81
CX	URUGUAY, MONTEVIDEO	165
DC,DJ,DK	WEST GERMAN FEDERAL REP, BONN	50
DM	E. GERMAN DEMOCRATIC REP, BERLIN	46
DU	PHILIPPINES, MANILA	343
EA	SPAIN, MADRID	66
EA6	BALEARIC IS.	64
EA8	CANARY IS.	86
EA9	SPANISH SAHARA	72
EAØ	RIO MUNI	91
EI	IRELAND, DUBLIN	50
EL,5L	LIBERIA, MONROVIA	103
EP	IRAN, TEHRAN	42
ET3	ETHIOPIA, ADDIS ABABA	68
	ASMARA	63
F	FRANCE, PARIS	54
FB8	AMSTERDAM AND ST. PAUL IS.	92
	KERGUELEN IS.	121
FC	CORSICA	58
FG7	GUADELOUPE	152
FH8	COMORO IS.	81
FK8	NEW CALEDONIA, NOUMEA	271
FL8	FRENCH SOMALILAND, DJIBOUTI	63
FM7	MARTINIQUE	153
FO8	FRENCH POLYNESIA, TAHITI	248
	CLIPPERTON IS.	236
FP8	ST. PIERRE & MIQUELON IS.	55
FR7	REUNION IS.	81
FS7	SAINT MARTIN IS.	154
FU8	NEW HEBRIDES, VILA	276
FW8	WALLIS & FUTUNA IS.	268
FY7	FRENCH GUIANA, CAYENNE	146
G	ENGLAND, LONDON	51
GC	CHANNEL IS.	53
GD	ISLE OF MAN	48
GI	NORTHERN IRELAND, BELFAST	49
GM	SCOTLAND, GLASGOW	46
GW	WALES	50
HA,HG	HUNGARY, BUDAPEST	49
HB	SWITZERLAND, BERN	54
HBØ	LIECHTENSTEIN	54
HC	ECUADOR, QUITO	187
HC8	GALAPAGOS IS.	205
HH	HAITI, PORT-AU-PRINCE	175
HI	DOMINICAN REP, SANTO DOMINGO	170
HK	COLOMBIA, BOGOTA	180
HKØ	SAN ANDRES & PROVIDENCIA IS.	195
HM,HL9	KOREA, SEOUL	343
HP	PANAMA	190
HR	HONDURAS, TEGUCIGALPA	207
HS	THAILAND, BANGKOK	6
HV	VATICAN CITY	57
I	ITALY, ROME	57
	TRIESTE	53
IS	SARDINIA	60
IT	SICILY	61
JA,JH	JAPAN, TOKYO	333
JT1	MONGOLIA, ULAN BATOR	359
JY	JORDAN	54
JZØ	WEST IRIAN	313
KB6	BAKER IS.	278
KC4	NAVASSA IS.	183
KC6	CAROLINE IS.	312
KG4	GUANTANAMO BAY, CUBA	181
KG6	MARIANAS IS, GUAM	318
KG6I	VOLCANO IS.	327
KG6S	SAIPAN IS.	318
KH6	HAWAII, HONOLULU	283
KL7	ALASKA, ANCHORAGE	321
	FAIRBANKS	327
KM6	MIDWAY IS.	301
KP4	PUERTO RICO	160
KR6,8	RYUKYU IS, OKINAWA	340
KS4	SWAN IS.	203
KS6	U S SAMOA	264
KV4	VIRGIN IS.	151
KW6	WAKE IS.	304
KX6	MARSHALL IS.	294
KZ5	CANAL ZONE	190
LA	NORWAY, OSLO	39
	SVALBARD IS.	15
	JAN MAYEN IS.	25
LU	ARGENTINA, BUENOS AIRES	167
LX	LUXEMBOURG	51
LZ	BULGARIA, SOFIA	52
M1	SAN MARINO	55
MP4	MUSCAT & OMAN, MASQAT	48
OA	PERU, LIMA	184
OD5	LEBANON, BEIRUT	52
OE	AUSTRIA, VIENNA	49
OH	FINLAND, HELSINKI	35
OHØ	ALAND IS.	36
OK,OL	CZECHOSLOVAKIA, PRAGUE	48
ON	BELGIUM, BRUSSELS	51
OX	GREENLAND, GODTHAAB	22
OY	FAEROES IS.	38
OZ	DENMARK, COPENHAGEN	43
PA,PE,PI	NETHERLANDS, AMSTERDAM	49
PJ	NETHERLANDS ANTILLES	170
PJ2M	SINT MAARTEN	154
PX1	ANDORRA	62
PY	BRAZIL, BRASILIA	151
	RIO DE JANEIRO	150
	NATAL	132
PYØ	TRINDADE & MARTIM VAZ IS.	136
PZ	SURINAM	149
SK,SL,SM	SWEDEN, STOCKHOLM	38
SP	POLAND, WARSAW	44
ST	SUDAN, KHARTOUM	67
SU	EGYPT, CAIRO	58
SV	GREECE, ATHENS	56
SV5	DODECANESE IS.	54
TA,TC	TURKEY, ANKARA	49
TF	ICELAND, REYKJAVIK	34
TG	GUATEMALA, GUATEMALA CITY	214
TI	COSTA RICA	199
TJ	CAMEROON, YAOUNDE	90
TL8	CENTRAL AFRICAN REP, BANGUI	85
TN8	REPUBLIC OF CONGO, BRAZZAVILLE	82
TR8	GABON, LIBREVILLE	94
TT8	CHAD, FT. LAMY	81
TU2	IVORY COAST, ABIDJAN	99
TZ	MALI REPUBLIC, BAMAKO	96
UA1	SOVIET UNION, MOSCOW	34
UA9,Ø	ASIATIC RUSSIAN S.F.S.R.	359
UB5	UKRAINIAN S.S.R.	43
UC2	WHITE RUSSIAN S.S.R.	39
UD6	AZERBAIDZHAN S.S.R.	42
UF6	GEORGIAN S.S.R.	41
UG6	ARMENIAN S.S.R.	43
UH8	TURKMEN S.S.R.	33
UI8	UZBEK S.S.R.	29
UJ8	TADZHIK S.S.R.	28
UL7	KAZAKH S.S.R.	22
UM8	KIRGHIZ S.S.R.	21
UN1	KARELO-FINNISH S.S.R.	27
UO5	MOLDAVIAN S.S.R.	46
UP	LITHUANIAN S.S.R.	40
UQ	LATVIAN S.S.R.	38
UR	ESTONIAN S.S.R.	36
VE1	CANADA, HALIFAX	61
VE2	MONTREAL	4
VE3	TORONTO	305
VE4	WINNIPEG	307
VE5	SASKATOON	308
VE6	EDMONTON	311
VE7	VANCOUVER	302
VE8	FORT NELSON	318
VK1	AUSTRALIA, CANBERRA	265
VK2	SYDNEY	266
VK3	MELBOURNE	262
VK4	BRISBANE	274
VK5	ADELAIDE	272
VK6	PERTH	315
VK7	TASMANIA, HOBART	252
VK8	DARWIN	315
VK9	NORFOLK IS.	263
	NEW GUINEA, PAPUA, PORT MORESBY	299
VKØ	HEARD IS.	130
	MACQUARIE IS.	230
VO1	NEWFOUNDLAND, ST JOHNS	60
VO2	LABRADOR, HOPEDALE	27
VP1	BRITISH HONDURAS	212
VP2	ANTIGUA	151
VP5	TURKS & CAICOS IS.	172
VP7	BAHAMA IS.	186
VP8	FALKLAND IS.	171
	SOUTH GEORGIA IS.	159
	SOUTH ORKNEY IS.	166
VP9	BERMUDA IS.	134
VQ1	ZANZIBAR	79
VQ8	CHAGOS IS.	50
	MAURITIUS & RODRIGUEZ IS.	78
VQ9	SEYCHELLES IS.	65
VR1	GILBERT, ELLICE & OCEAN IS.	287
VR2	FIJI IS.	267
VR3	FANNING & LINE IS.	270
VR4	SOLOMON IS.	290
VR5	TONGA IS.	261
VR6	PITCAIRN IS.	229
VS5	BRUNEI	348
VS6	HONG KONG	351
VU	INDIA, BOMBAY	34
	CALCUTTA	18
	NEW DELHI	26
VU4	LACCADIVE IS.	38
VU5	ANDAMAN & NICOBAR IS.	16
XE,XF	MEXICO, MEXICO CITY	233
XE4	REVILLAGIGEDO IS.	247
XW8	LAOS	4
XZ	BURMA, RANGOON	11
YA	AFGHANISTAN, KANDAHAR	34
YI	IRAQ, BAGHDAD	47
YJ	NEW HEBRIDES, VILLA	276
YK	SYRIA	50
YN	NICARAGUA, MANAGUA	204
YO	RUMANIA, BUCHAREST	49
YS	EL SALVADOR, SAN SALVADOR	210
YU	YUGOSLAVIA, BELGRADE	51
YV	VENEZUELA, CARACAS	166
ZA	ALBANIA, TIRANA	55
ZB2	GIBRALTAR	71
ZC4	CYPRUS	53
ZD3	GAMBIA	102
ZD5	SWAZILAND	102
ZD7	SAINT HELENA	116
ZD8	ASCENSION IS.	116
ZD9	TRISTAN DA CUNHA & GOUGH IS.	135
ZE	SOUTHERN RHODESIA, SALISBURY	94
ZK1	COOK IS.	252
ZK2	NIUE IS.	258
ZL1	NEW ZEALAND, AUCKLAND	251
ZL2	WELLINGTON	245
ZL3	CHRISTCHURCH	243
ZL4	DUNEDIN	241
ZP	PARAGUAY, ASUNCION	164
ZS	SOUTH AFRICA, CAPE TOWN	116
	DURBAN	106
	JOHANNESBURG	104
ZS2	PRINCE EDWARD & MARION IS.	121
ZS3	SOUTH-WEST AFRICA, WINDHOEK	107
3A	MONACO	57
3V8	TUNISIA, TUNIS	63
3W8	VIETNAM, SAIGON	359
4S7	CEYLON, COLOMBO	32
4W1	YEMEN	60
4X4,4Z4	ISRAEL	54
5A	LIBYA, TRIPOLI	65
5H3	TANZANIA, DAR ES SALAAM	80
5N2	NIGERIA, LAGOS	93
5R8	MALAGASY REPUBLIC, TANANARIVE	84
5T5	MAURITANIA, NOUAKCHOTT	97
5U7	NIGER, NIAMEY	89
5V	TOGO	93
5W1	WESTERN SAMOA	265
5X5	UGANDA	83
5Z4	KENYA, NAIROBI	77
6O	SOMALI REPUBLIC, MOGADISHU	68
6W8	SENEGAL, DAKAR	101
6Y5	JAMAICA	187
7G1	REPUBLIC OF GUINEA, CONAKRY	103
7O	SOUTH YEMEN, ADEN	61
7P8	LESOTHO	107
7Q7	MALAWI, ZOMBA	87
7X	ALGERIA, ALGIERS	67
7Z,HZ	SAUDI ARABIA, MECCA	55
8F1,2,3	JAVA, BATAVIA	358
8F4	SUMATRA	5
8F5	BORNEO	348
8F6	CELEBES IS.	336
8P6	BARBADOS	149
8R	GUYANA, GEORGETOWN	152
9G1	GHANA, ACCRA	96
9H1	MALTA	61
9I,9J	ZAMBIA, LUSAKA	94
9K2	KUWAIT	48
9L1	SIERRA LEONE, FREETOWN	103
9M2	FEDERATION OF MALAYSIA	7
9M6	SABAH, NORTH BORNEO	345
9M8	SARAWAK	345
9N1	NEPAL, KATMANDU	19
9Q5	REP. OF THE CONGO, KINSHASA	94
	LUBUMBASHI	91
	KISANGANI	83
9U5	BURUNDI	83
9V1	SINGAPORE	3
9X5	RWANDA	83
9Y4	TRINIDAD & TOBAGO IS.	155

WORLD WIDE QSL BUREAUS

AP Pakistan Amateur Radio Society, QSL Bureau, P O Box 65, Lahore, West Pakistan, Asia
AP Tiger Amateur Radio Club, Dacca Signals, Dacca 6, East Pakistan, Asia
CE Radio Club of Chile, P O Box 13630, Correo 15, Santiago, Chile, South America
CM-CO Federacion de Radioaficionados de Cuba, P O Box 6996, Havana, Cuba
CN AAEM, P O Box 299, Rabat, Morocco, Africa
CN U S Navy in Morocco, H L "Tommy" Hall, General Del'y, U S Naval Training Cmd, FPO New York 09544, USA
CN9 Amateur Radio Club Zona Norte, P O Box 124, Tetuan, Morocco, Africa, or via URE or AAEM
CP Radio Club Boliviano, P O Box 2111, La Paz, Bolivia, South America
CR4 Radio Club de Cabo Verde, CR4AA, Praia, Sao Tiago, Cape Verde Islands, Africa
CR6 LARA, P O Box 484, Luanda, Angola, Africa
CR7 LREM, Liga dos Radio Emissores de Mocambique, P O Box 812, Lourenco Marques, Mozambique, Africa
CR9 Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia
CT1-2-3 REP, Rua D.Pedro V, 7-4, Lisbon, Portugal, Europe
CX Radio Club of Uruguay, P O Box 37, Montevideo, Uruguay, South America
DC-DJ-DK-DL DARC QSL Bureau, P O Box 86 03 20, D8 Munich 86, West German Federal Republic, Europe
DL2-5 Via C J Thomas, GW3PSM, 59 Maendy Way, West Pontnewydd, CWMBRAN, Monmouthshire NP4 1HW, Wales, Europe
DL4-5 Via DL4-5 QSL Bureau, c/o MARS Radio Station, HQS 93rd Signal Bn, APO New York 09175, USA
DM DM QSL Bureau, P O Box 30, Berlin 55, East German Democratic Republic, Europe
DU PARA QSL Bureau, P O Box 4083, Manila, Philippines
EA URE, Union of Radioaficionados Espanoles, P O Box 220, Madrid, Spain, Europe
EI IRTS QSL Bureau, 24 Wicklow St, Dublin 20124, Ireland
EL Cards for EL1 & 2 only - G Marcus Kelly, c/o Liberian Govt. Radio Stn, Monrovia, Liberia, Africa
All others - Via QSL Bureau, P O Box 1477, Monrovia, Liberia, Africa
EP Charles A Bowers, P O Box 2000, USDAO, American Embassy, APO New York 09205
ET3 Telecommunications Amateur Radio Club, P O Box 1047, Addis Ababa, Ethiopia, Africa
Cards for U S Army Personnel may be sent via Kagnew Amateur Radio Club, ET3USA, APO New York 09843
F REF QSL Service, P O Box 70, Paris 12, France, Europe
FB8 QSL Manager, 5R8BC, P O Box 587, Tananarive, Madagascar, Africa
FG7 Radio Club Guadeloupe, P O Box 387, Pointe-A-Pitre, Guadeloupe, West Indies
FH8 QSL Manager, 5R8BC, P O Box 587, Tananarive, Madagascar, Africa
FK8 QSL Bureau, P O Box 637, Noumea, New Caledonia
FL8 REF QSL Service, P O Box 70, Paris 12, France, Europe
FM7 REF QSL Service, P O Box 70, Paris 12, France, Europe
FO8 Radio Club Oceanien, P O Box 374, Papeete, Tahiti
FP8 Radio Club S P M, P O Box 347, St.Pierre & Miquelon Is. or R E F QSL Bureau, P O Box 70, Paris 12, France
FY7 R E F QSL Service, P O Box 70, Paris 12, France
G RSGB, Radio Society of Great Britain, c/o Arthur Milne, G2MI, 29 Kechill Gdns, Hayes, Bromley, Kent, England
I S W L QSL Bureau, 87 Dunnington Rd, Wooton Bassett, Swindon, Wilts, England, Europe
GC RSGB
GD RSGB
GI R R Parsons, GI3HXV, 45 Erinvale Av, Finaghy, Belfast 10, Northern Ireland, Europe
GM RSGB
GW RSGB
HA-HG HSRL, P O Box 214, Budapest 5, Hungary
HB USKA, HB9NL, Sonnenrain 188, 6233 Bueron, Lucerne, Switzerland, Europe
HBØ USKA, HB9NL, Sonnenrain 188, 6233 Bueron, Lucerne, Switzerland, Europe
HC Guayaquil Radio Club, P O Box 5757, Guayaquil, Ecuador, South America
HC1 Asociacion Radio Ecuatoriana, P O Box 289, Quito, Ecuador, South America
HH Radio Club of Haiti, P O Box 943, Port-au-Prince, Haiti, West Indies
HI Radio Club Dominicano, P O Box 1157, Santo Domingo, D.N., Dominican Republic, West Indies
HK LCRA, Liga Colombiana de Radio Aficionados, P O Box 584, Bogota, Colombia, South America
HK4 For members only - Radio Club Antioquia, P O Box 2300, Medellin, Colombia, South America
HL9 All HL9 stations - address with call letters and name, c/o 8th U S Army Signal Officer, AC of SCE, APO San Francisco 96301
HM KARL, Central Box 162, Seoul, Korea, Asia
HM North Korea - QSL Bureau, P O Box 39, Pyongyang, North Korea, Asia
HP LPRA QSL Bureau, P O Box 9A-175, Panama 9-A, Republic of Panama, Central America
HR1-HR4 Radio Club Tegucigalpa, Box 149-c, Tegucigalpa, DC, Honduras
HR2 QSL Bureau, Radio Club de Honduras, P O Box 273, San Pedro Sula, Cortes, Honduras
HR3-HR6 HR3FJI, Av 14 De Julio, 3 Calle, La Ceiba, Atlantida, Honduras
HR5 HR5NLC, Santa Rosa de Copan, Copan, Honduras
HS STAR QSL Bureau, P O Box 2008, c/o GPO, Bangkok, Thailand, Asia
HV Domenico Petti, HV1CN, Vatican City, Europe
HZ-7Z Via HZ3TYQ, Victor L Crawford, P O Box 1721, Aramco, Dhahran, Saudi Arabia, Asia
I ARI, Viale V Vento 12, 20124 Milano, Italy
JA JARL, Japanese Amateur Radio League, P O Box 377, Tokyo, Japan, Asia
JX All JX stations - address with call letters and name, c/o Jan Mayen, Norwegian Embassy, Reykjavik, Iceland
KA FEARL(M), CMR Box 1414, APO San Francisco 96525
KC4AA Office of Antarctic Programs, National Science Foundation, Washington, D.C. 20550, USA
KC4US c/o Commander, Antarctic Support Activities, FPO New York 09501
OR c/o Kenneth W Nokes, 17 Island Park Rd, Ipswich, Mass. 01938
KC6 Caroline Islands cards are sent direct
KG1 KG1AA through KG1EZ, MARS Director, KG1BX, 1983rd Comm. Sqdn, APO New York 09023, USA
KG1FA through KG1HZ, MARS Director, KG1FR, 2004th Comm. Sqdn, APO New York 09121, USA
KG4 Base Amateur Radio Office, Box 12, FPO New York 09593
KG6 Mariana Islands, except Guam, send cards direct
KG6 Guam only, via P O Box 445, Agana, Guam, Mariana Is.
KH6 John H Oka, KH6DQ, P O Box 101, Aiea, Oahu, Hawaii 96701
KL7 Mary Olendorff, KL7BJD, Star Rte C, Wasilla, Alaska
KM6 KM6BI, Box 14, FPO San Francisco 96643, USA
KP4 Alicia G Rodriguez, KP4CL P O Box 1061, San Juan, Puerto Rico
KP4 Novice cards only - the NNQB District QSL Manager, KP4QA, Jorge Blanch, Box 2573, San Juan, Puerto Rico
KR6 QSL Bureau, OARC, APO San Francisco 96331, USA
KR8 QSL Bureau, OARC, P O Box 37, Kadena, Okinawa
KS4 Swan Island, West Indies, via Tampa, Florida, USA
KV4 Graciano Belardo, KV4CF, P O Box 572, Christiansted, St. Croix 00820, Virgin Is, West Indies
KW6 USCG Loran Station, KW6CGA, P O Box 7, Wake Island, Central Pacific Ocean
KX6 Kwajalein Amateur Radio Club, KX6BU, P O Box 444, APO San Francisco 96555, USA
KX6 Eniwetok Amateur Radio Club, Air Force Western Test Range, APO San Francisco 96333 USA
KZ5 Via KZ5GS, Gloria M Spears, P O Box 407, Balboa, Canal Zone, Central America
LA Norwegian Radio Relay Liga, P O Box 21, Refstad, Oslo 5, Norway, Europe
LU RCA, Radio Club Argentino, Carlos Calvo 1424, Buenos Aires, Argentina, South America
LX Robert Schott, LX1DC, 35 Rue Batty Weber, Esch s/Alzette, Luxembourg, Europe
LZ Central QSL Bureau, Box 830, Sofia, Bulgaria, Europe
M1 Geom Mario Graziani, M1B, via Della Tana 226, Republic of San Marino, Europe
MP4 Ian Cable, MP4BBW, Box 425, Awali, Bahrein Is, Asia
OA RCP, Radio Club of Peru, Box 538, Lima, Peru, S.A.
OD5 RAL QSL Bureau, Box 1217, Beirut, Lebanon, Asia
OE OE, VSV QSL Bureau, P O Box 999, Vienna 1/9, Austria, Europe
OH SRAL QSL Bureau, P O Box 10306, Helsinki 10, Finland, Europe
OK-OL Central Radio Club, P O Box 69, Praha 1, Czechoslovakia
ON UBRC, P O Box 224, Brussels 1, Belgium
OX-OZ EDR QSL Bureau, Ingstrup, 9480 Lokken, Denmark, Europe
OX4 OX4FA-OX4HZ via MARS Director, XP1AB, 2004 Comm Sq, APO New York 09121 USA
OX5 OX5AA-OX5EZ via MARS Director, XP1AA, 1983 Comm Sq, APO New York 09023 USA
OY QSL Bureau, OY3B, Sofus Rubeksen, U Svartifossi, DK-3800, Torshavn, Faeroes Island, Europe
PA-PE-PI Members & Non-members - VERON, IARU-QSL Bureau, P O Box 400, Rotterdam, Netherlands, Europe
PJ VERONA QSL Bureau, P O Box 383, Willemstad, Curacao, Netherlands Antilles, S.A.
PJ Cards for Aruba - Aruba Amateur Radio Club, Box 273, San Nicolas, Aruba, Netherlands Antilles, S.A.
PY1 LABRE, Box 2353, Rio de Janeiro, Brazil, S.A.
PY2 LABRE, Box 22, Sao Paulo, SP, Brazil, S.A.
PY3 LABRE, Box 2180, Porto Alegre, RS, Brazil, S.A.
PY4 LABRE, R. Curitiba 656, Conjunto 25, Belo Horizonte, MG, Brazil
PY5 LABRE, Box 1455, Curitiba, PR, Brazil, S.A.
PY6 LABRE, Av Cons. Almeida Couto 25, Salvador, BA, Brazil, S.A.
PY7 LABRE, Box 1043, Recife, PE, Brazil, S.A.
PY7 Fernando de Noronha, via PY7AMP, Av Agamenon Magalhaes 300, Recife, Pernambuco, Brazil
PY8 LABRE, P O Box 71, Belem, Para, Brazil, S.A.
PY9 LABRE, Box 2, Cuiaba, MT, Brazil, S.A.
PYØ Direct or via LABRE, P O Box 2353, Rio de Janiero, GB, Brazil, S.A.
PY Radio Clube Brasileiro RA-RH, P O Box 14630, Sao Paulo, SP, Brazil, South America
PZ SARL, QSL Manager, P O Box 240, Paramaribo, Surinam, S.A.
SK-SL-SM SSA, 12207 Enskede 7, Sweden
SP PZK QSL Bureau, P O Box 320, Warsaw 1, Poland, Europe
SU QSL Bureau, P O Box 840, Cairo, Egypt, Africa
SV SV QSL Bureau, c/o Nick Contses, SV1DA, P O Box 1442, Athens, Greece, Europe
SVØ QSL Bureau, c/o MARS Station, P O Box 3055, APO New York 09223 USA
TA-TC Turkey Radyo Amatorleri Cemiyeti, P O Box 699, Karakoy, Istanbul, Turkey, Asia
TF IRA, Islenskir Radio Amatorar, P O Box 1058, Reykjavik, Iceland, Europe
TF For American amateurs, P O Box 22, WSNCS, FPO New York 09571 USA
TG CRAG, P O Box 115, Guatemala City, Guatemala, C.A.
TI Radio Club of Costa Rica, P O Box 2412, San Jose, Costa Rica, Central America
TN8 QSL Bureau, P O Box 2239, Brazzaville, Republic of Congo, Africa
U Central Radio Club, P O Box 88, Moscow, Russia, Europe
VE1 L J Fader, VE1FQ, P O Box 663, Halifax, Nova Scotia, Canada
VE2 J Ravenscroft, VE2NV, 353 Thorncrest Av, Dorval, Quebec, Canada
VE3 Russ H Buckley, VE3UW, 20 Almont Road, Downsview, Ontario, Canada
VE4 D E McVittie, VE4OX, 647 Academy Road, Winnipeg 9, Manitoba, Canada
VE5 VE5JI, A Lloyd Jones, 2328 Grant Rd, Regina, Saskatchewan, Canada
VE6 K N Tettelaar, VE6AAV, Sub.P O 55, North Edmonton, Alberta, Canada
VE7 Henry R Hough, VE7HR, 1291 Simon Road, Victoria, British Columbia, Canada
VE8 George T Kondo, VE8RX, VE8 ARRL QSL Bureau, Dept. of Transport, Norman Wells, NWT, Canada
VK-VKØ WIA, Federal QSL Bureau, P O Box 41, Box Hill, Victoria 3128, Australia
VK1-VK2 WIA QSL Bureau, P O Box 1734, GPO, Sydney, NSW 2001, Australia
VK3 QSL Bureau, E Trebilcock, 340 Gillies St, Thornbury, Victoria 3071, Australia
VK4 QSL officer, VK4HR, Harry Scholz, 95 Stephen St, Morningside 4170, Brisbane, Queensland, Australia
VK5-VK8 QSL Bureau, c/o George Luxon, VK5RX, 27 Belair Rd, Torrens Park, South Australia 5062
VK6 QSL Bureau, c/o J Rumble, VK6RU, P O Box F319, GPO Perth, West Australia 6001
VK7 QSL Bureau, Box 371B, GPO, Hobart, Tasmania 7001, Australia
VK9 QSL Bureau, c/o P O, Port Moresby, Papua, Australia
V01 Ernest Ash, V01AA, P O Box 6, St. Johns, Newfoundland, Canada
V02 Goose Bay ARC, P O Box 232, Goose Bay, Labrador, Canada
VP2 Antigua - via Gerald Price, VP2AC, P O Box 114, St. Johns, Antigua, Leeward Is.
VP2 Dominica - Rev. William B Surbrook, VP2DA, P O Box 64, Roseau, Dominica, Windward Is.
VP2 Grenada - Alister Hughes, VP2GE, Springs, St. Georges, Grenada, Windward Is.
VP2 St. Lucia - via Timothy A James, VP2LT, P O Box 322, Castries, St. Lucia, Windward Is.
VP2 St. Vincent - via QSL Bureau, P O Box 142, St. Vincent, Windward Is.
VP7 Bahamas Amateur Radio Society, P O Box 6004, Nassau, Bahama Is.
VP8 Falkland Is. & South Georgia - direct or the CX QSL Bureau, P O Box 37, Montevideo, Uruguay, South America
All other VP8 bases via - RSGB, England
VP9 Radio Society of Bermuda, P O Box 275, Hamilton, Bermuda
VQ1 The RSEA QSL Bureau, P O Box 2387, Dar-Es-Salaam, Tanzania, East Africa
VQ8 Paul Caboche, VQ8AD, P O Box 467, Port Louis, Mauritius, Africa
VR2 The QSL Bureau, P O Box 184, Suva, Fiji Islands
VS5 MARTS, P O Box 777, Singapore, Asia
VS6 Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia
VS9 Via RSGB, 35 Doughty St, London, WC 1, England
VU Amateur Radio Society of India, P O Box 534, New Delhi 1, India, Asia
W1-K1 Foreign stations only, via Hampden County A R Assn, Box 216, Forest Park Stn, Springfield, Mass 01108
W2-K2 Foreign stations only, via North Jersey DX Assn, P O Box 505, Ridgewood, New Jersey 07451
W3-K3 Foreign stations only, via W3KT, Jesse Bieberman, RFD 1, Valley Hill Rd, Malvern, Pa. 19355
W4-K4 Foreign stations only, via K4HXF, H L Parrish Jr, RFD 5, Box 804, Hickory, N.C. 28601
WA4-WB4-WN4 Foreign stations only, via W4LR, J R Baker, 1402 Orange St, Melbourne Beach, Florida 32951
W5-K5 Foreign stations only, via K5QVH, Hurley O Saxon, Box 9915, El Paso, Texas 79989
W6-K6 Foreign stations only, via San Diego DX Club, P O Box 6029, San Diego, California 92106
W7-K7 Foreign stations only, via Willamette Valley DX Club, Box 555, Portland, Oregon 97207
W8-K8 Foreign stations only, via WA8CXY, Paul R Hubbard, 921 Market St, Zanesville, Ohio 43701
W9-K9 Foreign stations only, via W9MSG, Ray P Birren, P O Box 519, Elmhurst, Illinois 60128
WØ-KØ Foreign stations only, via WØDMA, Alva A Smith, 238 E Main St, Caledonia, Minnesota 55921
XE-XF Via LMRE, P O Box 907, Mexico 1, DF, Mexico, N.A.
XW8 Houmphanh Saignasith, XW8AL, Statistics Dept, P O Box 46, Vientiane, Laos, Asia
XZ BARTS, P O Box 800, Rangoon, Burma, Asia
YA CDRC, P O Box 279, Kabul, Afghanistan, Asia
YK QSL Bureau, P O Box 35, Damascus, Syria, Asia
YN Via Mike Murciano, YN1MO/W4, P O Box 902, Coral Gables, Florida 33134 USA
YO The Central Radio Club, P O Box 1395, Bucuresti 5, Romania
YO Radio Club Regional, P O Box 100, Timisoara, Romania, Europe
YS Oscar R Orellana, YS1O, P O Box 329, San Salvador, El Salvador, Central America
Members only - CRAS, P O Box 517, San Salvador, El Salvador, Central America
YU SRJ, P O Box 48, Belgrade, Yugoslavia, Europe
YV RCV, Radio Club Venezolano, P O Box 2285, Caracas, Venezuela, South America
YV Via Association of Radio Amateurs of Venezuela, P O Box 3636, Caracas, Venezuela, South America
ZB2 Via RAF Amateur Radio Club, Royal Air Force, Gibraltar, Europe
ZC4 Cyprus Amateur Radio Society, P O Box 216, Famagusta, Cyprus, or via G2MI
ZD7 Via P O Jamestown, St. Helena, Africa
ZD8 Ascension Amateur Radio League, ZD8AR, P O Box 4187, Patrick AFB, Florida, USA
ZD9 SARL, P O Box 3037, Capetown, South Africa
ZE RSR QSL Manager, P O Box 2377, Salisbury, Rhodesia
ZF1 Cards may be sent direct
ZK1 QSL Bureau, Radio Station Rarotonga, Rarotonga, Cook Is.
ZL NZART, P O Box 489, Wellington, New Zealand
ZP Radio Club Paraguayo, Casilla de Correo 512, Asuncion, Paraguay, South America
ZS For members only - SARL, P O Box 3037, Capetown, Cape Province, South Africa
3A2 Pierre Anderhalt, 3A2CN, 41 Blvd. Jardin Exotique, Monaco - or Director Generale des Telecoms, 16 Blvd. de Suisse, Monte Carlo, Monaco, Europe
4S7 Radio Society of Ceylon, QSL Manager, P O Box 907, Colombo, Ceylon, Asia
4X4-4Z4 IARC, P O Box 4099, Tel Aviv, Israel
5A QSL Bureau, Box 372, Tripoli, Libya, North Africa
5H3 The RSEA QSL Bureau, P O Box 2387, Dar-Es-Salaam, Tanzania, East Africa
5N2 Nigerian Amateur Radio Society, P O Box 2873, Lagos, Nigeria, Africa
5R8 QSL Bureau, P O Box 587, Tananarive, Madagascar, Africa
5V Via P O Box 33, Atakpame, Togo, West Africa
5W1 H E Betham, Director of Post Office & Radio, GPO, Apia, Western Samoa
5X5 The Uganda Amateur Radio Club QSL Bureau, P O Box 3433, Kampala, Uganda, East Africa
5Z4 The RSEA QSL Bureau, P O Box 30077, Nairobi, Kenya, East Africa
6O Via P O Box 397, Mogadiscio, Somali Republic, Africa
6W8 REF, or P O Box 971, Dakar, Senegal, Africa
6Y5 Jamaica Amateur Radio Assn, Jamaica Red Cross, 76 Arnold St, Kingston 5, Jamaica, West Indies
7G1 Central Radio Club, Box 69, Praha 1, Czechoslovakia
7Q7 Via R MacFarlane, 7Q7RM, P O Box 472, Blantyre, Malawi
7X ARA QSL Service, Box 2, Alger, Algeria, Africa
7Z Via HZ3TYQ, Victor L Crawford, P O Box 1721, Aramco, Dhahran, Saudi Arabia, Asia
8P6 Amateur Radio Society of Barbados, Highgate Signal Stn, Flagstaff Rd, St. Michael, Barbados, Windward Is.
8R1 Cards may be sent direct
9G1 Ghana Amateur Radio Society, P O Box 3773, Accra, Ghana, Africa
9H1 Robert F Galea, 9H1E, Casa Galea, Railway Road, Birkirkara, Malta, Europe
9I-9J Via Radio Society of Zambia, P O Box 332, Kitwe, Zambla, Africa
9K2 Nasir H Khan, 9K2AN, Box 736, Kuwait, Asia
9L1 Radio Society of Sierra Leone, P O Box 907, Freetown, Sierra Leone, Africa
9M2 MARTS, Box 777, Kuala Lumpur, Malaysia, Asia
9M6-9M8 Via N Yatheendran, 9V1JY, 363 Woodlands Rd, Singapore 23, Asia
9Q5 UCRA QSL Bureau, P O Box 1459, Kinshasa, Dem. Rep. of Congo, Africa
9U5 UCAR QSL Bureau, P O Box 3748, Elisabethville, Rep. of the Congo
9V1 N Yatheendran, 9V1JY, 363 Woodlands Rd, Singapore 23, Asia
9X5 UCAR QSL Bureau, P O Box 3748, Elisabethville, Rep. of the Congo, Africa
9Y4 Les A Thomas, 9Y4LT, P O Box 1167, Port-of-Spain, Trinidad, South America

SAN FRANCISCO, CALIF.

The table below shows the great circle bearing in degrees from the point indicated above to countries throughout the world having licensed radio amateurs. Where cities are shown the bearing to the nearest degree is given. These bearings were compiled from information supplied by the U. S. Coast and Geodetic Survey.

PREFIX	COUNTRY	BEARING
A2C	BOTSWANA, MAFEKING	71
AC3	SIKKIM	331
AC4	TIBET, LHASA	331
AC5	BHUTAN	329
AP	PAKISTAN, KARACHI	351
BV	TAIWAN, TAIPEI	305
BY	CHINA, CHUNGKING	319
	PEKING	320
	SHANGHAI	310
CE	CHILE, SANTIAGO	139
CEØA	EASTER IS.	167
CEØZ	JUAN FERNANDEZ IS.	145
CM,CO	CUBA, HAVANA	101
CN	MOROCCO, CASABLANCA	49
CP	BOLIVIA, LA PAZ	126
CR3	PORTUGUESE GUINEA	71
CR4	CAPE VERDE IS.	73
CR6	ANGOLA, NOVA LISBOA	68
CR7	MOZAMBIQUE, LOURENCO MARQUES	69
	MOZAMBIQUE	40
CR8	GOA	342
CR8	TIMOR IS.	275
CR9	MACAO'	308
CT1	PORTUGAL, LISBON	47
CT2	AZORES IS.	56
CT3	MADEIRA IS.	56
CX	URUGUAY, MONTEVIDEO	131
DC,DJ,DK	WEST GERMAN FEDERAL REP, BONN	030
DM	E. GERMAN DEMOCRATIC REP, BERLIN	026
DU	PHILIPPINES, MANILA	298
EA	SPAIN, MADRID	42
EA6	BALEARIC IS.	40
EA8	CANARY IS.	58
EA9	SPANISH SAHARA	47
EAØ	RIO MUNI	58
EI	IRELAND, DUBLIN	34
EL,5L	LIBERIA, MONROVIA	72
EP	IRAN, TEHRAN	6
ET3	ETHIOPIA, ADDIS ABABA	25
	ASMARA	22
F	FRANCE, PARIS	33
FB8	AMSTERDAM AND ST. PAUL IS.	264
	KERGUELEN IS.	212
FC	CORSICA	34
FG7	GUADELOUPE	95
FH8	COMORO IS.	30
FK8	NEW CALEDONIA, NOUMEA	240
FL8	FRENCH SOMALILAND, DJIBOUTI	19
FM7	MARTINIQUE	96
FO8	FRENCH POLYNESIA, TAHITI	209
	CLIPPERTON IS.	153
FP8	ST. PIERRE & MIQUELON IS.	57
FR7	REUNION IS.	9
FS7	SAINT MARTIN IS.	94
FU8	NEW HEBRIDES, VILA	243
FW8	WALLIS & FUTUNA IS.	236
FY7	FRENCH GUIANA, CAYENNE	99
G	ENGLAND, LONDON	33
GC	CHANNEL IS.	36
GD	ISLE OF MAN	33
GI	NORTHERN IRELAND, BELFAST	34
GM	SCOTLAND, GLASGOW	31
GW	WALES	34
HA,HG	HUNGARY, BUDAPEST	26
HB	SWITZERLAND, BERN	32
HBØ	LIECHTENSTEIN	31
HC	ECUADOR, QUITO	123
HC8	GALAPAGOS IS.	137
HH	HAITI, PORT-AU-PRINCE	100
HI	DOMINICAN REP, SANTO DOMINGO	98
HK	COLOMBIA, BOGOTA	115
HKØ	SAN ANDRES & PROVIDENCIA IS.	113
HM,HL9	KOREA, SEOUL	311
HP	PANAMA	116
HR	HONDURAS, TEGUCIGALPA	118
HS	THAILAND, BANGKOK	312
HV	VATICAN CITY	32
I	ITALY, ROME	32
	TRIESTE	29
IS	SARDINIA	35
IT	SICILY	33
JA,JH	JAPAN, TOKYO	303
JT1	MONGOLIA, ULAN BATOR	329
JY	JORDAN	19
JZØ	WEST IRIAN	273
KB6	BAKER IS.	246
KC4	NAVASSA IS.	102
KC6	CAROLINE IS.	275
KG4	GUANTANAMO BAY, CUBA	100
KG6	MARIANAS IS, GUAM	287
KG6I	VOLCANO IS.	293
KG6S	SAIPAN IS.	282
KH6	HAWAII, HONOLULU	252
KL7	ALASKA, ANCHORAGE	333
	FAIRBANKS	340
KM6	MIDWAY IS.	275
KP4	PUERTO RICO	96
KR6,8	RYUKYU IS, OKINAWA	302
KS4	SWAN IS.	108
KS6	U S SAMOA	230
KV4	VIRGIN IS.	94
KW6	WAKE IS.	275
KX6	MARSHALL IS.	263
KZ5	CANAL ZONE	116
LA	NORWAY, OSLO	22
	SVALBARD IS.	9
	JAN MAYEN IS.	20
LU	ARGENTINA, BUENOS AIRES	132
LX	LUXEMBOURG	32
LZ	BULGARIA, SOFIA	25
M1	SAN MARINO	31
MP4	MUSCAT & OMAN, MASQAT	8
OA	PERU, LIMA	130
OD5	LEBANON, BEIRUT	20
OE	AUSTRIA, VIENNA	28
OH	FINLAND, HELSINKI	16
OHØ	ALAND IS.	18
OK,OL	CZECHOSLOVAKIA, PRAGUE	26
ON	BELGIUM, BRUSSELS	31
OX	GREENLAND, GODTHAAB	34
OY	FAEROES IS.	28
OZ	DENMARK, COPENHAGEN	24
PA,PE,PI	NETHERLANDS, AMSTERDAM	30
PJ	NETHERLANDS ANTILLES	103
PJ2M	SINT MAARTEN	94
PX1	ANDORRA	39
PY	BRAZIL, BRASILIA	112
	RIO DE JANEIRO	115
	NATAL	97
PYØ	TRINDADE & MARTIM VAZ IS.	104
PZ	SURINAM	100
SK,SL,SM	SWEDEN, STOCKHOLM	19
SP	POLAND, WARSAW	22
ST	SUDAN, KHARTOUM	30
SU	EGYPT, CAIRO	24
SV	GREECE, ATHENS	27
SV5	DODECANESE IS.	25
TA,TC	TURKEY, ANKARA	20
TF	ICELAND, REYKJAVIK	30
TG	GUATEMALA, GUATEMALA CITY	121
TI	COSTA RICA	119
TJ	CAMEROON, YACUNDE	55
TL8	CENTRAL AFRICAN REP, BANGUI	50
TN8	REPUBLIC OF CONGO, BRAZZAVILLE	50
TR8	GABON, LIBREVILLE	61
TT8	CHAD, FT. LAMY	47
TU2	IVORY COAST, ABIDJAN	67
TZ	MALI REPUBLIC, BAMAKO	65
UA1	SOVIET UNION, MOSCOW	22
UA9,Ø	ASIATIC RUSSIAN S.F.S.R.	335
UB5	UKRAINIAN S.S.R.	16
UC2	WHITE RUSSIAN S.S.R.	18
UD6	AZERBAIDZHAN S.S.R.	8
UF6	GEORGIAN S.S.R.	13
UG6	ARMENIAN S.S.R.	10
UH8	TURKMEN S.S.R.	3
UI8	UZBEK S.S.R.	354
UJ8	TADZHIK S.S.R.	350
UL7	KAZAKH S.S.R.	350
UM8	KIRGHIZ S.S.R.	351
UN1	KARELO-FINNISH S.S.R.	12
UO5	MOLDAVIAN S.S.R.	21
UP	LITHUANIAN S.S.R.	19
UQ	LATVIAN S.S.R.	18
UR	ESTONIAN S.S.R.	17
VE1	CANADA, HALIFAX	62
VE2	MONTREAL	62
VE3	TORONTO	66
VE4	WINNIPEG	48
VE5	SASKATOON	33
VE6	EDMONTON	18
VE7	VANCOUVER	359
VE8	FORT NELSON	360
VK1	AUSTRALIA, CANBERRA	240
VK2	SYDNEY	240
VK3	MELBOURNE	239
VK4	BRISBANE	244
VK5	ADELAIDE	
VK6	PERTH	259
VK7	TASMANIA, HOBART	234
VK8	DARWIN	268
VK9	NORFOLK IS.	235
	NEW GUINEA, PAPUA, PORT MORESBY	266
VKØ	HEARD IS.	209
	MACQUARIE IS.	218
VO1	NEWFOUNDLAND, ST JOHNS	55
VO2	LABRADOR, HOPEDALE	46
VP1	BRITISH HONDURAS	116
VP2	ANTIGUA	94
VP5	TURKS & CAICOS IS.	95
VP7	BAHAMA IS.	97
VP8	FALKLAND IS.	145
	SOUTH GEORGIA IS.	140
	SOUTH ORKNEY IS.	149
VP9	BERMUDA IS.	79
VQ1	ZANZIBAR	34
VQ8	CHAGOS IS.	337
	MAURITIUS & RODRIGUEZ IS.	9
VQ9	SEYCHELLES IS.	5
VR1	GILBERT, ELLICE & OCEAN IS.	255
VR2	FIJI IS.	237
VR3	FANNING & LINE IS.	235
VR4	SOLOMON IS.	257
VR5	TONGA IS.	231
VR6	PITCAIRN IS.	187
VS5	BRUNEI	296
VS6	HONG KONG	310
VU	INDIA, BOMBAY	343
	CALCUTTA	329
	NEW DELHI	342
VU4	LACCADIVE IS.	342
VU5	ANDAMAN & NICOBAR IS.	320
XE,XF	MEXICO, MEXICO CITY	126
XE4	REVILLAGIGEDO IS.	149
XW8	LAOS	316
XZ	BURMA, RANGOON	319
YA	AFGHANISTAN, KANDAHAR	3
YI	IRAQ, BAGHDAD	12
YJ	NEW HEBRIDES, VILLA	243
YK	SYRIA	17
YN	NICARAGUA, MANAGUA	119
YO	RUMANIA, BUCHAREST	23
YS	EL SALVADOR, SAN SALVADOR	121
YU	YUGOSLAVIA, BELGRADE	26
YV	VENEZUELA, CARACAS	104
ZA	ALBANIA, TIRANA	29
ZB2	GIBRALTAR	46
ZC4	CYPRUS	21
ZD3	GAMBIA	71
ZD5	SWAZILAND	72
ZD7	SAINT HELENA	89
ZD8	ASCENSION IS.	87
ZD9	TRISTAN DA CUNHA & GOUGH IS.	114
ZE	SOUTHERN RHODESIA, SALISBURY	58
ZK1	COOK IS.	223
ZK2	NIUE IS.	228
ZL1	NEW ZEALAND, AUCKLAND	226
ZL2	WELLINGTON	224
ZL3	CHRISTCHURCH	223
ZL4	DUNEDIN	222
ZP	PARAGUAY, ASUNCION	125
ZS	SOUTH AFRICA, CAPE TOWN	95
	DURBAN	79
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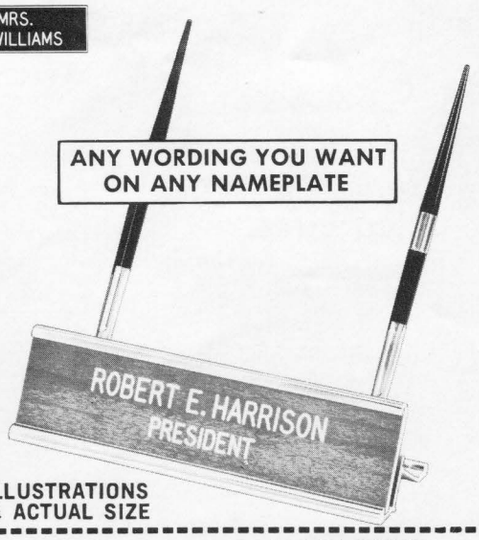




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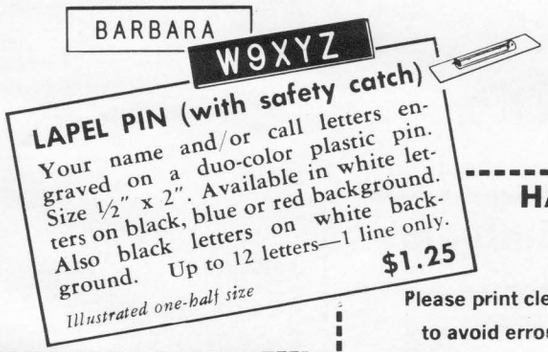
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☐ Exec. Desk Set	☐ Walnut Grained ☐ Jet Black	☐ All letters same size ☐ Large letters over small ☐ Small letters over large		☐ Gold ☐ Silver
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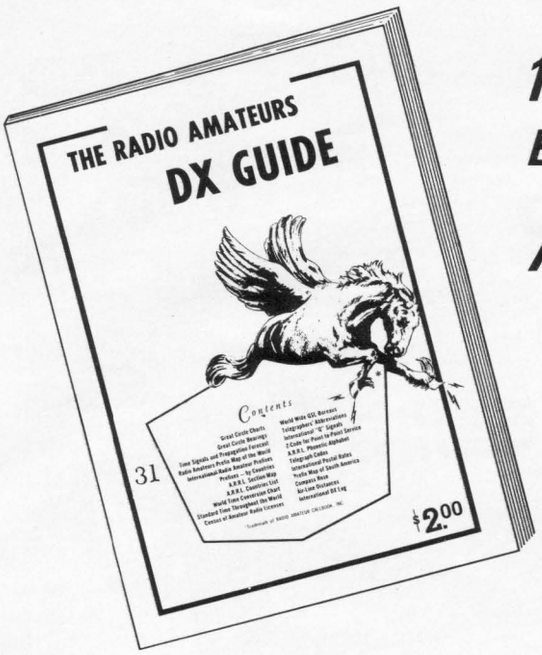
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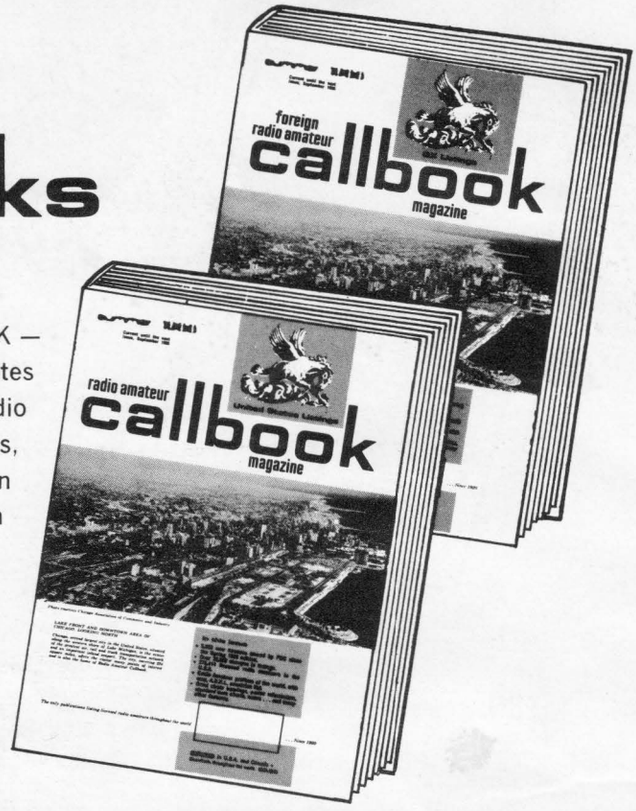
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